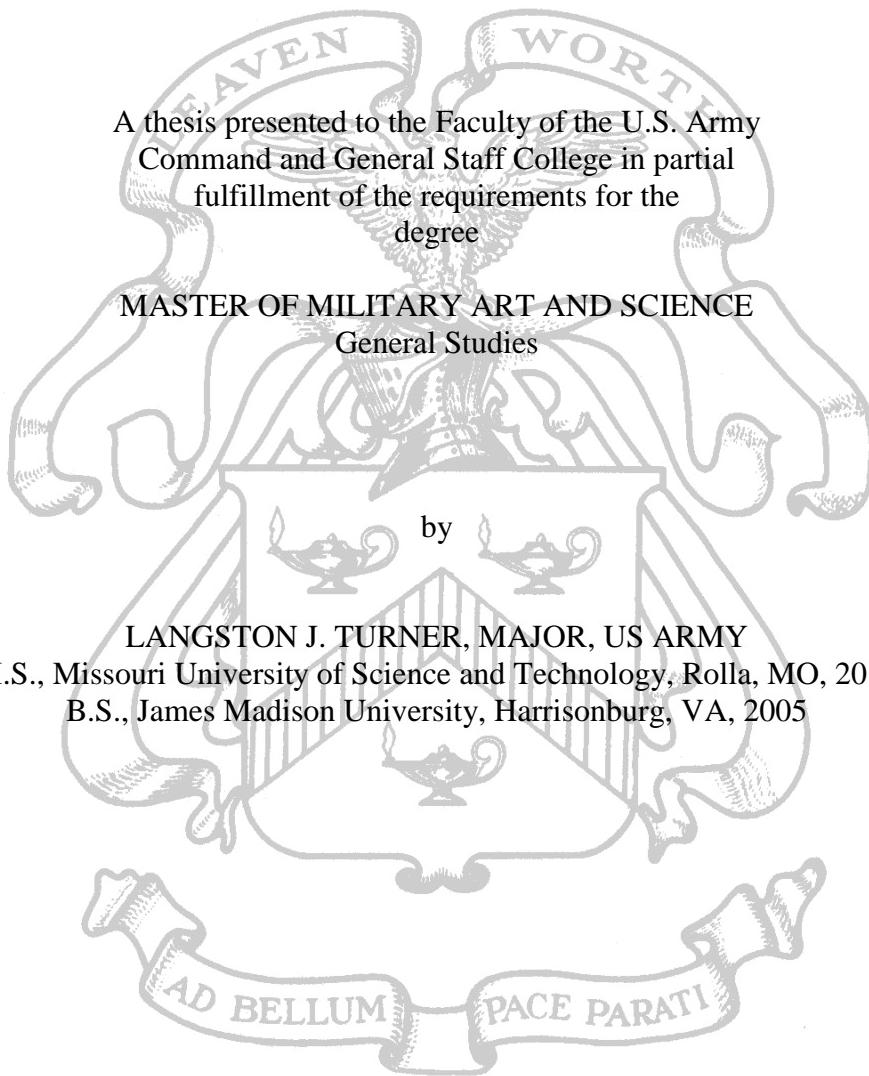


DEVELOPING ARMY LEADERS THROUGH INCREASED RIGOR IN
PROFESSIONAL MILITARY TRAINING AND EDUCATION



Fort Leavenworth, Kansas
2017

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ABSTRACT

DEVELOPING ARMY LEADERS THROUGH INCREASED RIGOR IN PROFESSIONAL MILITARY TRAINING AND EDUCATION, by MAJ Langston J. Turner, 107 pages.

Over the past 16 years of conflict the characteristics of military engagements have grown increasingly complex. The 2016 Army Warfighting Challenge—Develop Agile and Adaptive Leaders is the current approach the Army has taken to determine how to shape the knowledge, skills, and attributes of future Army senior leaders. Ultimately, leader development comes down to ensuring the appropriate balance of training and education with associated experience to fully enable a leader to operate in austere environments and within the realms of policy makers. This document examined two cases in history of thoughts on leader development through training and education. It then shifted to analysis of Army learning models used over the last 12 years to make recommendations on the way forward for the development of Army leaders who are capable of operating in a world of multi-domain battle and fulfilling the needs of the Army enterprise at the strategic level.

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ACRONYMS

ALC	Army Learning Concept
ALDS	Army Leader Development Strategy
ALM	Army Learning Model
AWfC	Army Warfighting Challenge
CAC	Combined Arms Center
CGSC	Command and General Staff College
CGSOC	Command and General Staff Officer Course
CSA	Chief of Staff of the Army
JPME	Joint Professional Military Education
KSA	Knowledge, Skills, and Attributes
NCO	Non-Commissioned Officer
OBTE	Outcomes-Based Training and Education
OPMS	Officer Personnel Management System
PME	Professional Military Education
RETAL	Review of Education, Training and Assignments for Leaders
SDL	Self Directed Learning
SSDL	Staged Self Directed Learning
TF	Task Force
TRADOC	Training and Doctrine Command
TTP	Tactics, Techniques, and Procedures

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CHAPTER 1

INTRODUCTION

both training and education are vital to our students' learning needs. We must train our graduates on enduring doctrinal principles, emerging lessons, and the skills they will require in their career. We must educate our graduates for the uncertainty they will surely encounter; they must know how to think and apply critical reasoning and creative thinking in complex ambiguous situations.

—U.S. Army Combined Arms Center,
“Mission, Vision, Principles, Priorities & Philosophy”

Background

A long-standing discussion amongst military leaders has been the variations in opinion between the art and science of war. A prevalent idea in today's armed forces centers on the difference between training and educating when the ultimate goal is developing leaders that can operate in a complex environment. Army senior leaders have addressed the paradigm many times over the years and arrived at many different conclusions concerning leader development. The 2016 “Army Warfighting Challenges” (AWfC) seek to address 20 enduring problems and solicit solutions from the force. AWfC number 10—Develop Agile and Adaptive Leaders—is the current approach to determine how to shape the knowledge, skills, and attributes (KSA) of future Army senior leaders.¹ Ultimately, leader development entails ensuring the appropriate balance of training and education along with associated experience to fully enable a leader to operate in austere environments and within the realms of policy makers.

Purpose

This qualitative research case study fills a gap in scholarly literature. The document examined two cases in history of senior leader's thoughts on leader development through training and education. The research then conducted a critical analysis of Army learning models used over the last 12 years. The research concluded by making recommendations for the development of future Army leaders who are capable of operating in the complex world of multi-domain battle and fulfilling the needs of the Army enterprise. This was accomplished through the analysis of internal and external studies and by assessing the differences in each model's implementation.

Problem Statement

The Army's intellectual needs for the future require an increase in rigor in leader development due to the evolving complexities of the world. Leadership, applied through critical and creative thinking in association with an experienced, professional force capable of exacting the principles of mission command enables the dominance of the U.S. Army. However, the development of Army leaders must maintain stride with advances in technology and the constantly evolving operational environment. Balancing the proportions of training and education now, as well as accentuating leader development via experience is essential to establishing the intellectual foundation for the future.

Identification of the Problem

The researcher first read pertinent background information on the history of leader development and how training and education have been influenced by key military

figures from Prussian influence to the inception of the U.S. Army Training and Doctrine Command. This reading led to questioning the relative amounts of training and education required to develop leaders in today's operational environment. Next, the learning models used over the last 12 years were reviewed. This led to assessing the degree of the author's own ability and future likelihood of possessing the KSA needed for senior leadership and whether the current PME path would lead to that development. Thus, the research problem was ascertained.

Significance of the Problem

Over the past 16 years of conflict, the U.S. Army has seen the characteristics of war grow increasingly complex. Due to the increase in battlefield density, technological advancements have been misconstrued as the keys to providing our forces unfettered overmatch on the battlefield. However, superior technology is explained by LTG Herbert R. McMaster as the “vampire fallacy.”² It enhances capabilities and allows us to see more, but it cannot see through the fog of war or create a frictionless environment.

Chief of Staff of the Army (CSA) GEN Mark A. Milley, is driven to see that the nation maintains its global position today and into tomorrow through the effective use of human capital. He has placed emphasis on increasing the rigor in PME to optimize the Army's investment in its human capital. GEN Milley published his number one priority for the Army as readiness, with part of Army readiness being leader development.³ In his “Army Readiness Guidance, Calendar Year 2016-17” memorandum published January 20, 2016 he stated:

Professional Military Education serves as the principal way Soldiers and Officers build upon training, education, and experiences gained in units while broadening their skills without affecting career progression. The US Army is

reorganizing its education enterprise into a university structure. Branded “the Army University,” this system will increase academic rigor, create greater opportunities for accreditation, and enhance the quality of the force. This university system will align the officer, warrant officer, noncommissioned officer (NCO), and Army Civilian education programs. The Army is executing this change now as an investment in developing leaders of competence, character, and commitment who can rapidly adapt to new and unpredictable threats in today’s complex world.⁴

This statement leads to the belief that the learning models the Army has been using to develop its future leaders is not meeting the CSA’s intent. The models are not developing the increased KSA required to operate at both poles of the dichotomy between tactical genius and enterprise manager for the Army into 2020 and beyond.

Research Questions

Through the course of this qualitative research case study, the following questions were analyzed:

1. What were the requirements for the development of leaders when the learning model was created?
2. Did specific institutional systems and processes adapt to provide the agility and adaptability the Army required at that specific time?
3. How did the Army continue to improve its training and education development based on the five learning models?

Qualification for exploration and critique of these topics is based on service at the tactical and operational level and insight to strategic education processes; including assignments as commander, 911th Technical Rescue Engineer Company, Military District of Washington; operations officer, Office of the Chief of Engineers, Headquarters Department of the Army; and aid-de-camp to the commandant, U.S. Army War College.

Each assignment has afforded opportunities to gain insight into the development of leaders throughout the spectrum of PME and view interactions in key assignments in command and staff positions.

Scope and Delimitations

Answers to the aforementioned research questions were acquired by addressing current learning models' ability to develop the agility and adaptiveness of leaders conducting mission command and operating within the business rules that govern the enterprise and the development of policy. However, the study did not develop a new learning or leader development model nor offer conclusive solutions to the problem statement. It analyzed the numerous studies that have been conducted over the years and discussed the recommendations made by various think tanks, evaluators, and academics. The study also redressed missed opportunities that could guide the Army towards its intellectual future and meeting the intent of current Army senior leadership.

Research Methodology

An applied, exploratory, qualitative research methodology via a structured and focused case study comparison was conducted to make recommendations in the way forward for future PME programs. The qualitative method was conducted primarily through examination of written documents to achieve saturation in the subject matter for validity.⁵ In terms of exploration, it looked at the effects of previous learning models' endeavors to reshape learning structures.⁶ The application of the research is to drive Army senior leaders to take policy actions towards refocusing Army learning and leader development in accordance with the desired intent at each level of PME.

Themes of the qualitative inquiry were inductive analysis, qualitative data, and design flexibility. According to Michael Patton in his second edition of *Qualitative Evaluation and Research Methods*, inductive analysis is immersion in the details and specifics of the data to discover important categories, dimensions, and interrelationships. Qualitative data was pulled from historic accounts providing detailed description, quotes, and personal perspectives. Lastly, design flexibility allowed the pursuit of varied paths of discovery as they emerged throughout the research and compilation of data.⁷

The secondary research questions provided structure and focused the research objective in relation to each case study, while the comparative case study focused on aspects of five learning models instituted over the last 12 years.

1. The Army Pentathlete Leader Model (2005)
2. Objectives Based Training and Education (2008)
3. The Army Learning Concept & Adaptive Learning Model (2011)
4. Army Leader Development Strategy/Model (2013)
5. Civilian Studies

Data was collected from the case studies and systematic comparisons of each were conducted to report on the findings and make recommendations for the future.⁸

Assumptions

1. The U.S. Army *Operating Concept: Win in a Complex World, 2020-2040* dated October 31, 2014 will not significantly change in the near future.
2. The five Army learning and leader development models all had relative effects: implementation of some Army learning and leader development models were limited based on personalities of senior leaders in key positions;

and the goals of each learning model were applicable to the time in which they were developed.

Limitations

This study was primarily limited by the constraints associated with being a student researcher in the Command and General Staff Officer Course (CGSOC). The subject matter has been studied numerous times throughout the years by both military and civilian organizations and academics. Its breadth is so vast that to truly do it justice an in-depth study much longer than a condensed, ten-month period is required. Due to this factor, a macro level evaluation of models in relation to PME was used to focus on PME as an entirety versus conducting in depth analysis of each individual school or service. Additionally, this study was limited by the availability of resources translated or published. Close-hold and pre-decisional information was not included in the document. Bias in reporting was minimal; however, previous observations at the US Army War College skew research material in favor of structured educational processes to appropriately develop future senior leaders.

Definition of Terms

To fully understand the debate and its effects on today's Army education system one must understand the terms being used in today's military doctrine.

Rigor was examined by the Goldwater-Nichols Act. It was concerned with rigorous educational standards. In 1987, the Skelton Panel defined academic rigor as: (1) a challenging curriculum; (2) student accountability for mastering it; and (3) established standards against which student performance is measured.⁹

The Art of War is the employment of creative or intuitive skills. Art includes the creative, situational application of scientific knowledge through judgment and experience, and so the art of war subsumes the science of war. The art of war requires the intuitive ability to grasp the essence of a unique military situation and the creative ability to devise a practical solution. It involves conceiving strategies and tactics and developing plans of action to suit a given situation.¹⁰

The Science of War includes those activities directly subject to the laws of ballistics, mechanics, and like disciplines; for example, the application of fires, the effects of weapons, and the rates and methods of movement and resupply.¹¹

Professional Military Education is progressive levels of military education that convey the broad body of knowledge and professional competence essential for the military professional's career progression.¹²

Mission Command is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations.¹³

Operational Environment as defined by Joint Publication 3-0, *Joint Operations*, is a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander.¹⁴

Readiness, as defined by GEN Milley, is the ability to fight and win the nation's wars. It is the capability of the force to conduct the full range of military operations to defeat all enemies regardless of the threats they pose. It is made up of units that are properly manned, trained, equipped, and led.¹⁵

Unified Land Operations are simultaneous offensive, defensive, and stability or defense support of civil authorities' tasks to seize, retain, and exploit the initiative and consolidate gains to prevent conflict, shape the operational environment, and win our Nation's wars as part of unified action.¹⁶

Merriam-Webster's Dictionary defines training as the process by which someone is taught the skills that are needed for an art, profession, or job. It defines education as knowledge, skill, and development gained from study or training. In a 1985 article by Dr. John A. Kline published in the *Air University Review* entitled "Education and Training: Some Differences," he expanded the definition by relating training to the psychomotor domain of learning or the act of performing a task and education to the cognitive domain or the application of gained intelligence.¹⁷

Bildung is the German tradition of self-cultivation, wherein philosophy and education are linked in a manner that refers to a process of both personal and cultural maturation.¹⁸

Aufklärung is German for the Enlightenment, which was an intellectual movement that dominated the world of ideas in Europe in the 18th century.¹⁹

Triangulation and Saturation are two ways to determine the validity of a source in qualitative research. Triangulation refers to the use of multiple methods or data sources to develop a comprehensive understanding of phenomena²⁰ Saturation refers to reaching a point in analysis of data where more data will not lead to more information related to the research questions.

Andragogy, according to Malcolm Knowles, was the art and science of adult learning and a way of distinguishing adult learning from pre-adult schooling.²¹ He

defined pedagogical systems as child centered, teacher structured, focused on training for the future, and based on specific content standards.²²

Summary

Over time the art and science of war has been the topic of debate among senior leaders in the Army dating back to the dominance of the Prussians in Europe. Most have agreed that both training in the science and education in the art of war are essential to leader development and success on the battlefield. However, the argument of how much training and education should dominate Army learning models is still an unresolved question. The aims of this qualitative research case study are to explore history, past learning models, and make recommendations towards refocusing Army learning towards its desired intent as directed by the CSA.

To address the problem statement and secondary research questions the author conducted a literature review in chapter 2. It focused on the history of leader development and the leader development and learning models that have affected the author's career. Chapter 3 outlined the research methodology used to transform data into information. Chapter 4 consists of the analysis of data from the literature review via the application of the qualitative research case study methodology to create a shared understanding between the author and readers. As a result of the research, recommendations on ways to implement missed opportunities were made in chapter 5. The goal of the recommendations was to capitalize on past efforts and areas not implemented. Further study will be required to develop new models.

¹ Army Capabilities Integration Center (ARCIC), “Army Warfighting Challenges,” U.S. Army, June 14, 2016, updated January 31, 2017, accessed September 1, 2016. http://www.arcic.army.mil/App_Documents/AWFC-Current.pdf.

² Herbert Raymond McMaster, “H. R. McMaster: Thinking Clearly about War and the Future of Warfare—The US Army Operating Concept,” *Military Balance Blog*, October 23, 2014, accessed October 2, 2016, <http://www.iiss.org/en/militarybalanceblog/blogsections/2014-3bea/october-831b/thinking-clearly-about-war-and-the-future-of-warfare-6183>.

³ The Chief of Staff, U.S. Army (CSA), Memorandum for All Army Leaders, Subject: Army Readiness Guidance, Calendar Year 2016-17, The Chief of Staff of the U.S. Army, Washington, DC, January 20, 2016, accessed October 2, 2016, https://www.army.mil/e2/downloads/rv7/standto/docs/army_readiness_guidance.pdf, 6.

⁴ Ibid.

⁵ Michael Q. Patton, *Qualitative Evaluation and Research Methods* (Newbury Park, CA: Sage Publications, 1990), 10-14.

⁶ Sharan B. Merriam, *Qualitative Research: A Guide to Design and Implementation* (San Francisco CA: Jossey-Bass A. Wiley, 2009), 34-35.

⁷ Patton, 40-41.

⁸ Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge, MA: MIT Press, 2005), 67.

⁹ U.S. Congress, House, Committee on Armed Services, *Report of the Panel on Military Education of the One Hundredth Congress of the Committee on Armed Services House of Representatives*, 101st Cong., 1st sess. (Washington, DC: US Government Printing Office, 1989), 161.

¹⁰ Department of the Navy, Headquarters U.S. Marine Corps, Marine Corps Doctrinal Publication 1, *Warfighting* (Washington, DC: Department of the Navy, 1997), accessed April 1, 2017, <http://www.marines.mil/Portals/59/Publications/MCDP%201%20Warfighting.pdf>, 18.

¹¹ Ibid.

¹² Department of the Army, Headquarters U.S. Army, Training and Doctrine Command, TRADOC Pamphlet 350-70-14, *Training and Education Development in Support of the Institutional Domain* (Fort Eustis, VA: Training and Doctrine Command, March 2015), 161.

¹³ Headquarters, Department of the Army, Army Doctrine Publication 6-0, *Mission Command* (Washington, DC: Government Printing Office, 2012), 1.

¹⁴ Joint Chiefs of Staff, Joint Publication 3-0 *Joint Operations* (Washington, DC: Government Printing Office, August 2011), GL-14.

¹⁵ CSA, Army Readiness Guidance Calendar Year 2016-17, 3.

¹⁶ Headquarters, Department of the Army, Army Doctrine Reference Publication 3-0, *Operations* (Washington, DC: Government Printing Office, November, 2016), 3-1.

¹⁷ John A. Kline, “Education and Training: Some Differences,” *Air University Review* (January-February 1985), accessed January 6, 2016 <http://www.airpower.maxwell.af.mil/airchronicles/aureview/1985/jan-feb/kline.html>.

¹⁸ MacGregor Knox and Williamson Murray, *The Dynamics of Military Revolution: 1300-2050* (Cambridge, UK: Cambridge University Press, 2001), 70-72.

¹⁹ Azar Gat, *A History of Military Thought: From the Enlightenment to the Cold War* (Oxford, England: Oxford University Press, 2001), 56-57.

²⁰ Patton, 10.

²¹ Sharan B. Merriam, “Andragogy and Self-Directed Learning: Pillars of Adult Learning Theory,” *New Directions for Adult and Continuing Education*, no 89 (Spring 2001): 4, accessed January 8, 2017, http://umsl.edu/~wilmarthp/modla-links-2011/Merriam_pillars%20of%20andragogy.pdf.

²² Ibid.

CHAPTER 2

LITERATURE REVIEW

the profession of arms was not just a craft or technique, which is primarily mechanical, or an art, which requires unique talent and ability. It was instead an extraordinarily complex intellectual skill requiring comprehensive study and training.

—Michael Schoy, *General Gerhard Von Scharnhorst*

Introduction

The U.S. Army is Clausewitzian in nature with Jominian tendencies.¹ Army leaders tend to focus on operations related to the science of war as Antoine-Henri Jomini did, but must also be capable of guiding the strategic direction of the Army in line with the political administration, as Carl von Clausewitz's theories advocate. This dichotomy in military leadership was not limited to European leadership, but is a natural occurrence in militaries of all nations and eras. Political objectives determine military objectives and thus the amount of military power to be used in achieving them.

When whole communities go to war—whole peoples, and especially civilized peoples—the reason lies in some political situation, and the occasion is always due to some political object. War, therefore is an act of policy . . . Policy, then, will permeate all military operations, and, in so far as their violent nature will admit, it will have a continuous influence on them.²

To fully understand the reasoning behind the dichotomy and the relevance of Clausewitz today, one must understand the structure and governance of the Army enterprise. Article I, Section 8 of the *Constitution of the United States*:

The Congress shall have the Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States . . .

To declare War, grant Letters of Marque and Reprisal, and make rules concerning Captures on Land and Water;

To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

To provide and maintain a Navy;

To make Rules for the Government and Regulation of the land and naval Forces.³

A soldier's duty is to defend the United States and its national interests at home and abroad through the application of the science and art of warfare. However, the *Constitution* does not state that an Army must be maintained and therefore the enterprise must regularly justify itself to receive funding from Congress. In order to ensure the future of the Army, leaders must be politically astute without being partisan. Therefore, there must be an understanding of how funds are appropriated and how to justify the Army's requirements on an annual basis to civilians who may have little understanding of the military. Additionally, as leaders reach strategic levels, an acute awareness of the elements of national power (diplomatic, informational, military, and economic) and how to use them to achieve a desired outcome is needed to advise civilian leaders when contemplating the decision to go to war. Since Army leaders must be capable of operating in two distinct arenas, war and policy, their training and education must be structured to fully develop the KSA to deal with the complexities of the environments.

Chapter 2 provides history on leader development beginning with key figures in the Prussian military and “*Bildung*.” Since the U.S. Army is similar to Prussian theory and design, it is the optimum starting point. It then looked at how the development of the Training and Doctrine Command (TRADOC) and its early senior leaders, LTG Jack Cushman and GEN William DePuy, shaped the Army learning methodology that has led

to the Army learning models of today.⁴ Finally, chapter 2 defines the five learning models mentioned in chapter 1 to provide context and set the stage to address the three secondary research questions. Chapters 4 and 5 endeavor to answer how the Army can increase the level of rigor in leader development to meet its intellectual needs for the future.

Historic Requirements for Leader Development

Scharnhorst and the Prussian *Bildung*

Every art has its rules and maxims; they must be studied. Theory facilitates practice. The lifetime of one man is not sufficiently long to enable him to acquire perfect knowledge and experience; theory helps to supplement it; it provides youth with early experience and makes him skillful also through the mistakes of others. In the profession of war the rules of the art are never transgressed without punishment from the enemy.⁵

Clausewitz is a key figure in the study of the theory of war and strategy. His writings compiled in *On War* are central to the development of strategic leaders across the globe. However, it was his mentor, General Gerhard von Scharnhorst who focused leader development and Clausewitz on the *bildung*. According to MacGregor Knox and Williamson Murray, *bildung* is the systematic professional study and the cultivation of decision-making skill.⁶ For Scharnhorst military education could only be achieved by balancing practical field exercises, theoretical instructions, and personal study.⁷ In his four volumes of *Militair Bibliotheek* published between 1782 and 1784 Scharnhorst stressed realistic combat training, diligence in the study of history, and an in-depth knowledge of the opposition. General Scharnhorst is accredited with building the foundation of the Prussian General Staff, the formation of the military as a professional institution, and the reformation of the military education system in Prussia.⁸

Scharnhorst was heavily influenced by the writings of Ferdinand Friedrich von Nicolai, one of the foremost military scholars of the time in Germany.⁹ Nicolai's main belief was that military education was not enough to develop leaders. "Military education alone is not sufficient: it must be preceded by a broad general curriculum to educate the man within the officer." He continues by saying, "basic education is to be provided, including religion, languages, art, and the classics, followed by the advanced studies that include pure and applied sciences as well as history, geography, statistics, logistics, ethics, and the laws of nature, nations, and war." Nicolai concludes by saying that military sciences must all be studied and should include "equipment, organization, and armament; military architecture; and tactics, the science of warfare."¹⁰ In 1782, Scharnhorst was assigned to the Hanover artillery academy where he influenced the course agenda in the likes of Nicolai's design. However, he met opposition from his commander who believed improvements in scientific and technical education were of most importance.

Scharnhorst recognized the importance of early education. It set the stage for senior leadership and the ability to deal with the complexities of the future. Knowing that senior officers schooled under Fredrick the Great would be unwilling to update their knowledge he focused on the younger generation of officers who would engage the challenges and complexities of the future and phase out the leaders of the old regime who were stuck in their ignorance.¹¹

If a young man, who is destined for a military career, does not learn to use his mind right, to judge correctly and conclusively, the mathematics and theory of war, then no experience will help him. One has to give young people, destined to become officers, the early opportunity to think about their profession, to use other's insights and experiences; to do that they need to have the right basic

notions. Without those they will not find an interest in reading and will become gradually idle and inactive. The lessons at our institute aim to stimulate the ambition; the students become, due to the circumstances they live in, interested in things they would not have otherwise been interested in. They judge among themselves, dispute, ask, read up, and in doing so learn gradually to examine a topic thoroughly rather than only to repeat it in private lectures.¹²

Additionally, Scharnhorst realized that once senior ranks are attained there was limited time to endeavor in deep studies.¹³ The adage—you can't teach an old dog new tricks—was pervasive. According to Michael Schoy, he went on to argue that the *bildung* of officers refined the military and influenced society. *Bildung* was achieved through the balance of practical field exercises, theoretical instructions, and personal study.¹⁴

Scharnhorst's persistence paid off; however, he had been labeled a military scholar without application. Unfortunately, he was unable to escape his branding amongst the Prussian officer ranks, yet he continued his plight to reform the army and refocus on *bildung*. His goal was to expand the standards of education in the Prussian officer corps by forming “independent intellect” and the “power of judgement.”¹⁵ Scharnhorst sought to put education or theory in its proper order with practice or training to enable the application of theoretical knowledge in operational environments.

If the officer does not know how and where he could apply the universal principles and rules, and if he did not make his eyes used to the terrain; if he is not able to comply with the certain circumstances—if he were missing practice and judgement—what then does it help him all? Everybody knows the advantages of outflanking; but how many know how and where this can be done.¹⁶

In Scharnhorst's eyes, there were three components to the success of pedagogical systems. The three components were the method of instruction, the qualification of the instructor, and the commitment of the student.¹⁷ Dialogue and discourse had key supporting roles in the efforts to broaden Prussian intellect. Since senior leaders in the Prussian Army would not be subjugated to returning to school, Scharnhorst devised an

alternative method to spread his reformation as wide as possible. Thus, a volunteer society was formed to carry *bildung* into the ranks of the senior Prussian officers. The society was an intellectual arena where military discourse could occur and legitimacy maintained.¹⁸ However, despite all his efforts, it was not until after the Prussian Army was defeated by Napoleon Bonaparte at Jena and Auerstedlt in October 1806 that Scharnhorst's views gained universal recognition. He was then promoted to major general and assigned as the chairman of the Prussian Military Reorganization Commission in July 1807.¹⁹

During his tenure in his new position, Scharnhorst undertook many reformation projects contributing greatly to the future of the German Army. Of note were the reorganization of the Prussian command structure and establishment of the General War Department and the Ministry of War; reorganization of the General Staff and establishment of the troop general staff at the tactical level; and the adaptation of selection criteria for officers.²⁰ This last project called for a complete reform of the Prussian military education system and the development of a single educational command structure. The new educational command structure would be tiered and consisted of cadet training for aspiring officers, the three military schools that prepared junior officers for their second phase examinations, and the General War Academy at the highest level, which trained in the science of war and educated in the art of war. This final phase of the new system was intended to prepare officers from all branches for service on the General Staff.²¹

Throughout his career, there were many critics of Scharnhorst's reformation ideas and theories. Of particular note, in the Prussian system, was Georg Heinrich Berenhorst.

Berenhorst rejected the concepts of *bildung* and the *aufklarung*. His theories focused on operational design and tactical developments in the styling of Bernhard von Bulow and Jomini. Where Scharnhorst championed the study of the art of war for the development of Prussian leaders, Berenhorst advocated that competence and proficiency in the operational aspects or science of warfare best produced leaders capable of victory on the battlefield.²² His ideas were heavily influenced by the French combination of operational art and operational skirmishing.²³

Scharnhorst's early death kept him from ever assuming a high command position in the field. General Scharnhorst was the pioneer of Prussian *bildung* and according to Azar Gat's *A History of Military Thought: From the Enlightenment to the Cold War* he was the most notable and best-known military *Aufklarer*.²⁴ He was among the first to understand the tie between education, training, and experience in the development of leaders. Many of his processes and models are emulated in many modern armies and are considered timeless.

Due to the language barrier and lack of translations of Scharnhorst's works from German to English the key resources that aided in the development of the previous section were Michael Schoy's essay, "General Gerhard Von Scharnhorst: Mentor of Clausewitz and Father of the Prussian-German General Staff," and Gat's book, previously listed. Schoy's essay provided the bulk of the historical data on Scharnhorst's life, intellect, and impact on the Prussian military. Gat's book contained primary data in the form of translations of Scharnhorst's influential works as well as the works of peers and challengers. This data was triangulated between several other sources including

Knox's and Murray's *The Dynamics of Military Revolution: 1300-2050* and essays in editor Peter Paret's *Makers of Modern Strategy: from Machiavelli to the Nuclear Age*.

GEN DePuy, LTG Cushman, and the Early Years of Training and Doctrine Command

Almost 160 years after the death of Scharnhorst a controversial philosophical debate on the matter of training and education occurred in the U.S. Army. Commander, Training and Doctrine Command, GEN William E. DePuy, and Commander, Combined Arms Center, LTG John H. Cushman, took up the debate during their tenure in subordinating commands between 1973 and 1976. The essence of their disagreement was on the precedence of training or education for the force. Ultimately, they agreed that both were necessary, but at what proportion and when?

Towards the end of the Vietnam War, the Army entered a period of transition and reorganization. On January 27, 1973, the selective service announced that the draft had ended; the demographics of the force were moving to an all-volunteer military. Also in 1973, a major command level restructure was taking place as part of Chief of Staff of the Army GEN Westmoreland's Project Steadfast. The Vice Chief of Staff of the Army, GEN Bruce Palmer Jr., tasked his assistant LTG DePuy with part of Project Steadfast. DePuy developed the concept and execution plans to split the Continental Army Command headquarters in Fort Monroe, Virginia. Continental Army Command became the TRADOC consisting of all the Army's schools, training centers, and the Combat Development Command, and the Army Forces Command, made up of all the operational units.²⁵ Additionally, under GEN William Westmoreland's reorganization Fort Leavenworth, Kansas was designated as the CAC and absorbed the Combined Arms

Combat Development Agency previously known as Combat Development Command.

GEN DePuy became the first TRADOC commander and he selected LTG Cushman to command CAC.²⁶

When GEN DePuy became the TRADOC commander, his belief was that the proportion of training to education in the military was out of balance in favor of education. When asked what his thoughts were about training when he arrived at TRADOC his response was:

There's been a big argument for years about education and training. I'm not sure what the differences are, but I know that the Army had moved pretty much towards education and away from training . . . My conviction is that we were totally unbalanced towards education, and that as hard as TRADOC works, it will only bring the thing back into balance. As between the two, education and training you need both.²⁷

As the TRADOC commander GEN DePuy was given the opportunity to take leader development in a new direction and he endeavored to steer leaders at the battalion level and below back towards training in order to regain the balance between the two. He was successful at redirecting the proportions of training and education for enlisted and junior grade officers; however, he faced a greater challenge at the field grade level. The challenge came from whom he chose to command CAC, LTG John (Jack) H. Cushman, and his zeal for education towards a higher purpose.

As commander of CAC, under GEN DePuy, LTG Cushman entered his job with a view that the curriculum being taught at the U.S. Army Command and General Staff College (CGSC) required updating. This notion was based on previous work he had done, once in 1951 and again in 1956, to change the curriculum taught in CGSC while assigned on staff at Fort Leavenworth as a major. In a joint letter written by LTG Cushman and MAJ Dick Hallock they stated, "The basic missions of the College are: (1) to prepare

officers to fight today, and (2) to prepare professional officers for the future.”²⁸ LTG Cushman’s military foundation was in education and he had a clear understanding of instruction, curriculum development, and the need to develop leaders for the future. GEN DePuy had a different beginning but also entered his new position as the TRADOC commander with an eye for change in the development of leaders. He was a honed tactician, at the battalion level and below, who had published squad and platoon techniques in an article titled “11 Men, 1 Mind.” LTG Cushman used this article to develop his own team when in command of the 101st Infantry Division. GEN DePuy was shaped by his combat experience with the 90th Infantry Division in Normandy and wanted to apply the lessons he learned there and as assistant G-3 for training in V Corps in 1953 to shape the Army. GEN DePuy’s foundation was in training soldiers. Although multiple tours in Vietnam shaped both men’s senior level careers, their mindsets were at opposite ends of the spectrum; neither man knew a philosophical battle was in their future. LTG Cushman stated it as such “General DePuy was determined to teach the Army in the field, and Leavenworth students, ‘how to fight.’ I wanted to teach the students ‘how to think about how to fight’.”²⁹

In his Leavenworth Papers No.16, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations*, MAJ Paul H. Herbert describes GEN DePuy as confident, analytical, and decisive and LTG Cushman as thoughtful and reflective. He also stated the fundamental difference in belief between the two was that GEN DePuy believed an organization functioned best when told in simple terms what to do while LTG Cushman believed a liberated organization, free from

creative constraints functioned best. “DePuy wanted USACGSC to *train* . . . Cushman wanted to *educate* students as well as train them.”³⁰

GEN DePuy’s early career was steeped in combat experience and combat training. He highlighted his service as the assistant G-3 for training with V Corps as the best training he ever received in the Army. During this time, he served as a battalion evaluator and formed the opinion that combat experience produced better leaders.

I went through a little over 20 battalions each year. I watched people do it right, and I watched people do it wrong. I saw a lot more do it wrong than I saw do it right. I was struck by the fact that those who had commanded battalions in war were something like five times as good as those who hadn’t. I blamed a little bit of that on Leavenworth, because the ones who hadn’t commanded in war, more or less took a passive attitude, and waited for voluminous recommendations from their staff . . . Now, the guys who previously had commanded battalions, more or less made up their own minds, and the staff ran around behind them and made it work. They gave the troops plenty of time to move and to dig in, which made it a lot better.³¹

Since the fighting force of World War II through the Vietnam era was primarily draftees, the focus of leadership was to train the force for the task at hand or “how to fight” rather than educate them for future service.³² The “competency theory” of learning was the prevalent method of instruction in which an “assembly line” mentality was used to produce a high quantity of soldiers capable of executing tasks to standard versus producing quality careerists.³³ In *Changing an Army – An Oral History of General William E. DePuy, USA Retired* GEN DePuy is quoted, “I think you should train a man for the job he is going to perform; and then you can educate him so that the intellectual and moral environment in which he pursues his particular job will be enhanced.”³⁴ He also defines training as “What and how” while education is “Why and whether.”³⁵

In LTG Cushman’s “Fort Leavenworth, a Memoir,” GEN DePuy is portrayed as a micromanager who wanted CAC to focus on the methodical science of fighting. This is

evident in his Memorandum of Record written after his visit to the Combined Arms Combat Development Agency directing LTG Cushman in April of 1973:

To accomplish this mission, first priority must be given to measuring the effectiveness of Army units in the field, employed in a given scenario, with present capabilities. This measurement of present capabilities would constitute a baseline from which to evaluate the improvements in capabilities resulting from new weapons systems or organizational changes. Such evaluations would be made on an incremental basis, from the present toward the future.³⁶

Whereas, LTG Cushman had what he called an “unconventional, nonstandard, approach to teaching tactics.”³⁷ His views were deeply rooted in his study of the early military classic *Infantry in Battle* and his experience in Vietnam which was the basis for his understanding of warfare as an art form and that education outweighs the benefits of training on set methods. He quotes the book saying:

the leader who would become a competent tactician must first close his mind to the alluring formulae that well-meaning people offer in the name of victory . . . He must realize that training in solving problems of all types, long practice in making clear, unequivocal decisions, the habit of concentrating on the question at hand, and an elasticity of mind, are indispensable requisites for the successful practice of the art of war.³⁸

Throughout their tenure together as the TRADOC and CAC commanders the two went back and forth on methodology, curriculum, and organization with GEN DePuy maintaining constant scrutiny and applying a heavy hand on LTG Cushman’s initiatives. So who was right? Art or science, training or education? When LTG Cushman asked GEN DePuy what Leavenworth should emphasize, training or education, the response was “both.”

In today’s multi-domain environment, the requirements to develop a leader are more than ever both training and education. Together they provide the student the intellectual agility to deal with the complexities of the rapidly evolving world; however,

training and education should not have been nor should be an equal split at every level. How and when should the changes in proportions be phased into one's career is another question? PME institutions have to optimize the proportion to ensure the learning models developed and used in the classroom are meeting the needs of the future.

Learning and Leader Development Models

The Army Pentathlete Leader Model

In July 2005, the Headquarters, Department of the Army was tasked by the Secretary of the Army's Transition Team to determine, "How should the Army develop its military and civilian leaders, who will serve in both operational and institutional capacities, to become the pentathletes needed to operate and win in the new environment (21st Century national security environment)?"³⁹ In November 2006, *Army Leaders for the 21st Century: Final Report November 2006* was published by G-3/5/7. This was the Army's Review of Education, Training and Assignments for Leaders (RETAL). The report outlined the background and way forward to change the Army's leader development model into a program that would produce the desired pentathlete leaders of the future. The new model developed by the RETAL Task Force (TF) was labeled the Army Pentathlete Leader Model.

So, what is a pentathlete leader and how was it to be achieved? Based on the RETAL TF's final report a pentathlete leader is one that is versed in a wide range of areas and not just one discipline.⁴⁰ Therefore, the pentathlete leader is made up of several characteristics and possesses a specific set of skills and leader attributes:

1. Warrior leaders (soldiers) or accomplished professionals (civilians) who achieve tactical, technical, and functional proficiency through professional education as lifelong learners.
2. Strategic thinkers and confident decision makers who are adaptable and capable of critical thinking and accepting risk in uncertain situations and austere environments.
3. Enterprise managers who can lead change in complex organizations and maintain the bond between the American people and their Army.
4. Team builders and leader developers who can optimize the human capital within the force.
5. Diplomats of the Army skilled in governance and politics without being partisan.
6. Cultural ambassadors capable of effective communication across boundaries.⁴¹

In order for Department of the Army civilians, non-commissioned officers (NCOs), and officers to become pentathlete leaders the RETAL TF recommended a create, expand, and adjust approach to the existing leader development process. An identity had to be created within the civilian force, focusing on establishing a development and management system where little investment had been before. For NCOs, further study was recommended to expand the use of NCOs while retaining lifelong learners and integrating and synchronizing learning efforts under a virtual “Warrior University.” For officers the recommended strategy was to adjust development

processes through broadening assignments and addressing gaps in mental agility, cultural awareness, governance, enterprise management, and strategic leadership.⁴²

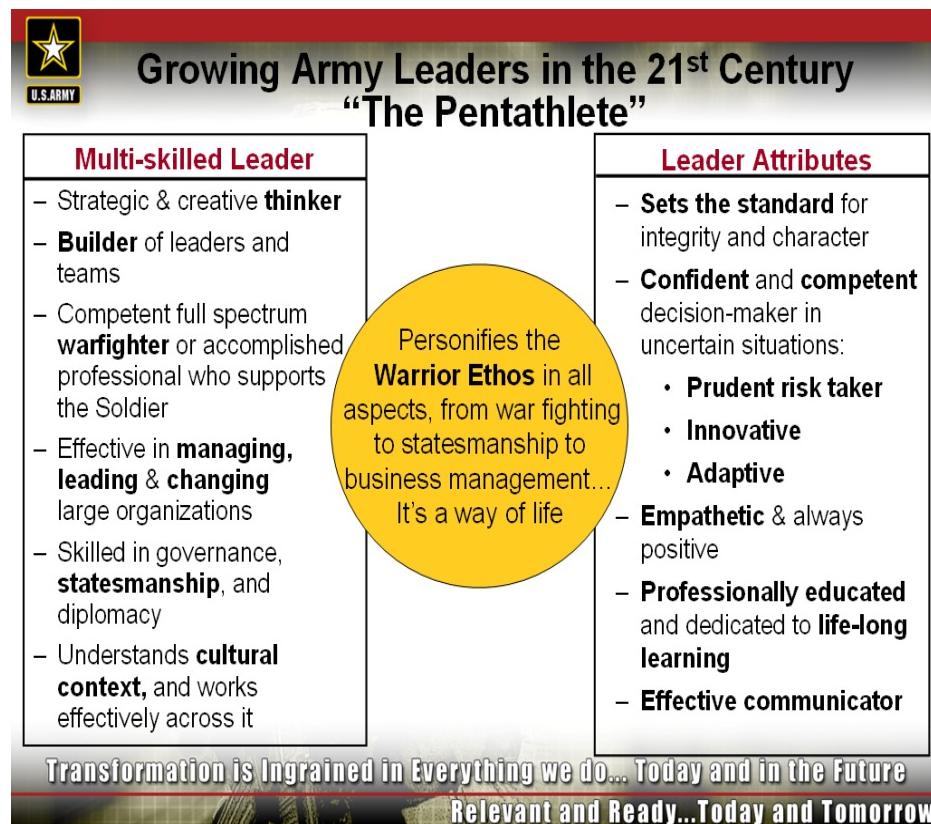


Figure 1. Army Pentathlete

Source: Deputy Chief of Staff G-3/5/7, Department of the Army, *Army Leaders for the 21st Century: Final Report* (Washington, DC: Headquarters, Department of the Army, November 22, 2006), accessed September 7, 2016, <http://cpol.army.mil/library/train/docs/AL21-Final.pdf>, A-10.

Objectives Based Training and Education

In the 2008-2009 timeframe, the Army was moving towards Outcomes-Based Training and Education (OBTE). OBTE took the “competency theory” training outlook

of task, conditions, and standards and established a baseline in conjunction with developed tactics, techniques, and procedures (TTP) and applied the understanding of “why” along with the fundamental principles of the TTPs enabled guided decision-making and initiative to achieve the desired outcome.⁴³ In basic terms, OBTE was about learning to achieve the commander’s intent and not the path to get there. The concept created a symbiotic relationship between training and education where each was a necessity to develop soldiers and enable mission command. OBTE provided an established framework for learners to learn for themselves.⁴⁴ “It enhances conceptual learning in training settings while also encouraging a more grounded understanding of skill development in educational settings. It may offer trainers and training developers a bridge to bring training and education philosophies and practices closer together.”⁴⁵

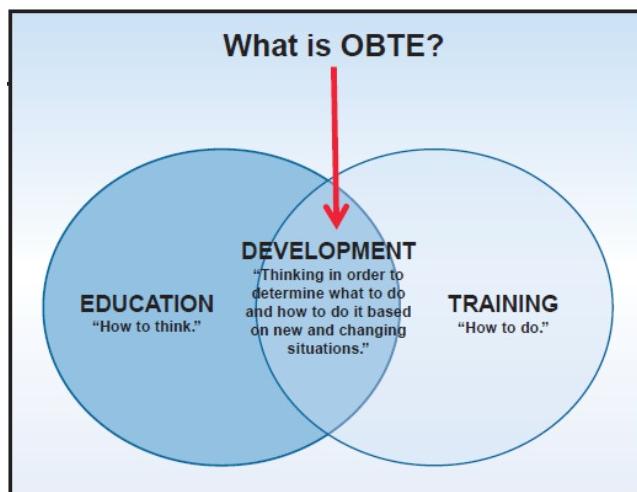


Figure 2. What is Outcomes-Based Education and Training?

Source: Chad R. Foster, “The Case for Outcomes-Based Training and Education,” *Armor* 118, no. 6 (2009): 22.

There was minimal research material on available OBTE. The key source with the most value was Chad Foster's article "The Case for Outcomes-Based Training and Education" published in *Armor* magazine in 2009. It clearly defined OBTE and graphically depicted the relationship between training and education. In comparison, William Spady's civilian model, Outcome Based Education developed in 1994 meant "clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences."⁴⁶ In essence, Outcome Based Education's focus was the tangible results of the learning process—teaching the test—and OBTE's focus was the instructors' method of soliciting and enhancing intangible attributes from their students to achieve desired outcomes.⁴⁷ The only thing the two models had in common were the words in their names.

The Army Learning Concept and Adaptive Learning Model

In January 2011, TRADOC published TRADOC Pamphlet 525-8-2, *The U.S. Army Learning Concept for 2015* (ALC). The concept document established a learning model where self-development, institutional instruction, and operational experience are blended together to facilitate life-long learning.⁴⁸ The model was born out of the thought that operational requirements and learning model capabilities were out of balance in favor of experience over education and training; very similar to GEN DePuy's view on operational experience. The push was instituted to move away from relying on TTPs and technology to further facilitate mission command by enabling leaders and soldiers capable of operating and adapting in full spectrum operations. The ALC goes further by

developing the Continuous Adaptive Learning Model and laying out a career span framework of learning to create lifelong learners.

The career span framework establishes guidelines that enable the mastering of the baseline soldier skills supporting tactical and technical competence—the science—in full spectrum operations and integrates competencies that develop adaptive and resilient Soldiers and leaders who can think critically and act ethically—the art—throughout their career and beyond. The framework does great in laying out the learning gates in career progression—initial entry, midgrade level, intermediate level, and strategic level.⁴⁹ However, it is missing a critical guideline proportion of training to education that has allowed too much training to slip back into CGSC negatively impacting the graduate level education . . . as insinuated in a blog posted on Foreign Policy.com.⁵⁰

TRADOC's Pamphlet 525-8-2: *The US Army Learning Concept for 2015* served as the key resource for the development of this section on the ALC and ALM. It was essential to understanding the concept of lifelong learning and the PME framework gates that govern a soldier's learning experience. Since this was a published Army concept, it served as the governing authority on the subject matter. Therefore, there was minimal triangulation required to confirm its accuracy.

Army Leader Development Strategy

In 2013, the *Army Leader Development Strategy* (ALDS) was published. The ALDS was designed to re-balance the three leader development components of training, education, and experience. Its purpose was to provide vision and guidance on ends, ways, and means for developing leaders that exercise mission command in unified land operations to meet the challenges of today and the future.⁵¹ ALDS stated, “leader

development was achieved through the career-long synthesis of the training, education, and experiences acquired through opportunities in the institutional, operational, and self-development domains, supported by peer and developmental relationships.”⁵² One important factor the ALDS incorporated that no other model or strategy did was account for the role of talent management in compliment with leader development. Talent management efforts sought to match skills with jobs to ensure the best people were fulfilling the roles where their skills could be optimized.

The lines of effort for implementing the ALDS were characterized by training, education, and experience. The ALDS defined each as follows:

(1) training is an organized, structured, continuous, and progressive process based on sound principles of learning designed to increase the capability of individuals, units, and organizations to perform specified tasks or skills. (2) Education is the process of imparting knowledge and developing the competencies and attributes Army professionals need to accomplish any mission the future may present. (3) Experience is the continuous progression of personal and professional events.⁵³

The three domains of the ALDS—institutional, operational, and self-development—provided additional structure to the lines of effort. The institutional domain included all organizations in the Army other than deployable units, the operational domain primarily consisted of deployable units, and the self-development domain bridged the gap between the other two domains while setting the stage for lifelong learning.⁵⁴

Lines of Effort

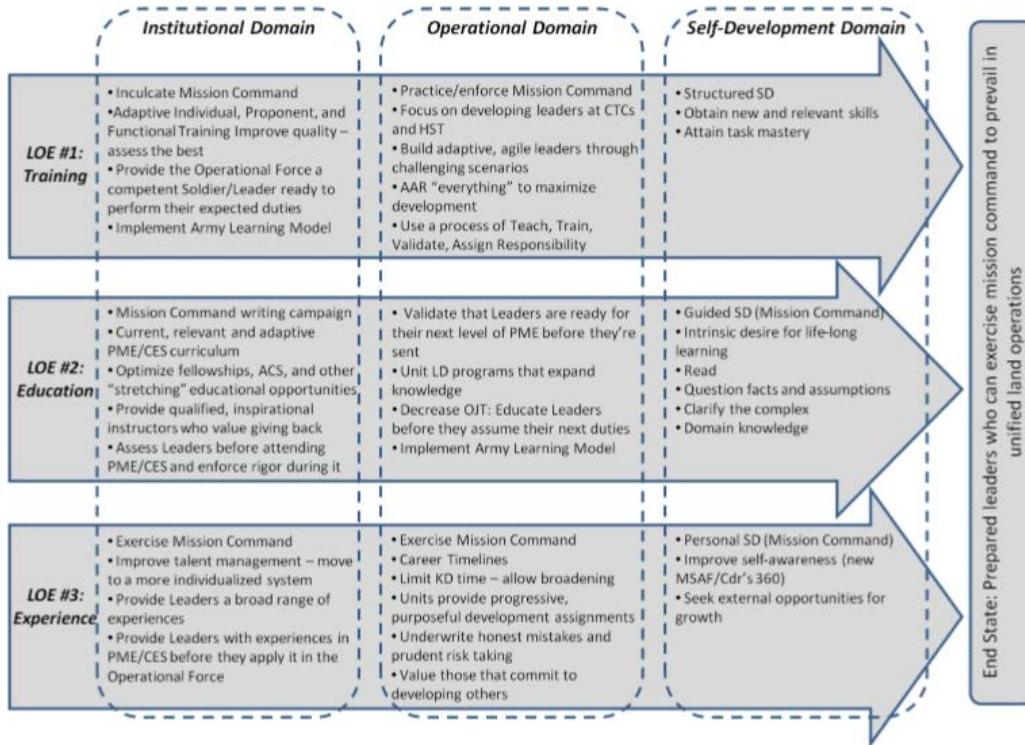


Figure 3. Army Leader Development Strategy Lines of Effort

Source: Headquarters, Department of the Army, *Army Leader Development Strategy 2013* (Washington, DC: Government Printing Office, 2013), 10.

Much like the ALC and ALM, the ALDS was published in a strategic Army document. The ALDS was the key research source to understanding its leader development requirements. Later, LTG David H. Huntoon, Jr., and GEN (RET) Fredrick M. Franks led the Chief of Staff of the Army’s Leader Development Task Force in assessing the state of officer leader development programs. Their analysis of the ALDS assisted in the synthesis of the data and understanding of the strategy.

Civilian Models

The *Review of the Education and Training of Officers* conducted in 1978 called for the adoption of adult education principles to enrich learning. It called for a major shift in training and education methods, including “seminar group discussion emphasizing Socratic questioning and selection of faculty who are subject matter experts and possess the teaching skills to effectively guide the learning of their students.”⁵⁵ The Army has since adopted many principles from Malcolm Knowles’ Adult Learning Theory or Andragogy of 1984. According to Knowles, the term andragogy was the art and science of adult learning and a way of distinguishing adult learning from pre-adult schooling.⁵⁶ The term was formed from Greek and is translated as “man-led” versus pedagogy which is “child-led.”⁵⁷ In comparison, in 1954 Knowles defined pedagogy as teacher structured, focused on training for the future, and based on specific content standards. Whereas, andragogy was learner structured, focused on assimilation of learning from experience, encouraged divergent thinking, and allowed outcomes to evolve as learning progressed.⁵⁸ His theories faced heavy criticism and between 1970 and 1980, he moved from an andragogy versus pedagogy position to representing learning on a continuum ranging from teacher-directed to student-directed learning. This continuum of learning model was what the Army has adopted.

In Sharan Merriam’s article, she argued that Knowles’ theory made five assumptions that underlie andragogy and described the adult learner as someone who:

- (1) has an independent self-concept and who can direct his or her own learning,
- (2) has accumulated a reservoir of life experiences that is a rich resource for learning,
- (3) has learning needs closely related to changing social roles,
- (4) is problem-centered and interested in immediate application of knowledge, and
- (5) is motivated to learn by internal rather than external factors.⁵⁹

Based on his previous assumptions, Knowles proposed a program-planning model for designing, implementing, and evaluating educational experiences with adults. This also led to the development of his four principles of andragogy [see figure 5]. The Army applied Knowles' assumptions and principles to develop their adult learning environment. TRADOC states that adult learning is promoted when “the learner’s prior knowledge is activated prior to learning new knowledge. The learner observes a demonstration then applies new knowledge. The demonstration and application are both based on real-world problems.”⁶⁰ This meant that in the Army learning environment students were expected to prepare for lessons and reflect prior to entering the classroom environment and able to participate in knowledgeable, professional discourse as part of the class, which was not always the case prior to adoption of adult learning theories.

KNOWLES'

5 ASSUMPTIONS OF ADULT LEARNERS

In 1980, Knowles made 4 assumptions about the **characteristics of adult learners (andragogy)** that are different from the assumptions about the characteristics of child learners (pedagogy). In 1984, Knowles added the 5th assumption.

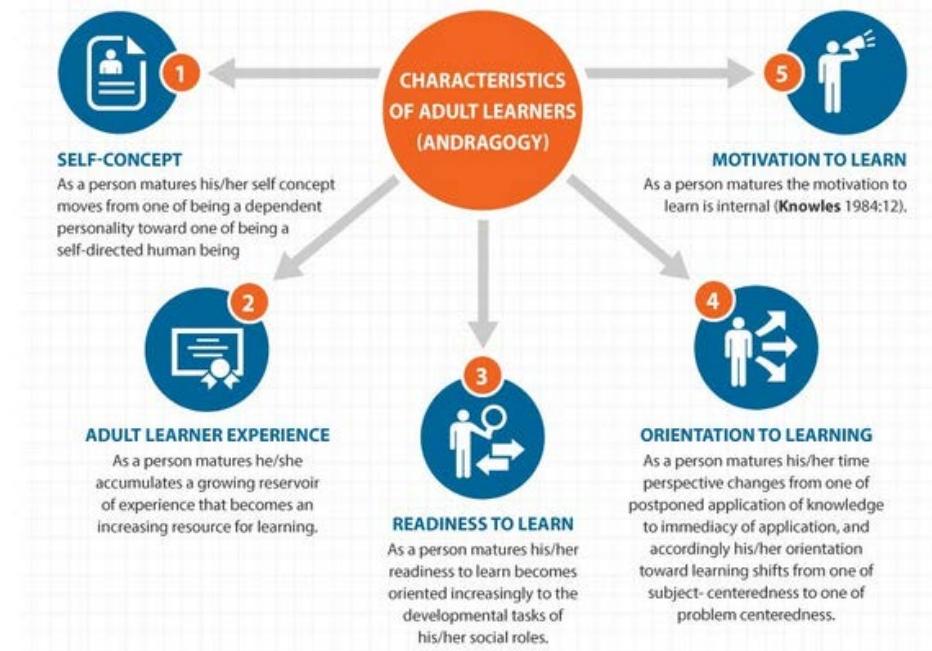


Figure 4. Knowles' Andragogy

Source: Christopher Pappas, “The Adult Learning Theory - Andragogy - of Malcolm Knowles,” eLearning Industry, 2014, accessed February 10, 2017, <https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles>.

KNOWLES'

4 PRINCIPLES OF ANDRAGOGY

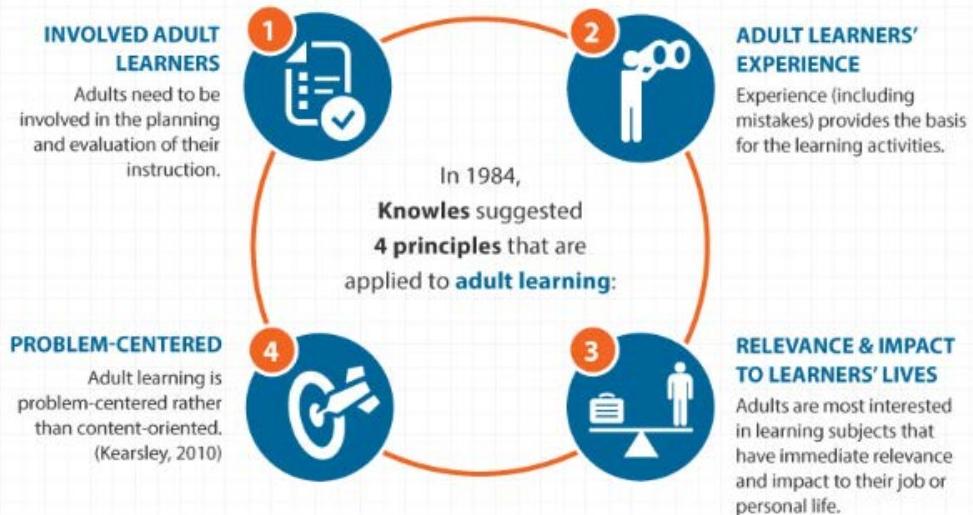


Figure 5. Knowles' Andragogy (cont.)

Source: Christopher Pappas, “The Adult Learning Theory - Andragogy - of Malcolm Knowles,” eLearning Industry, 2014, accessed February 10, 2017, <https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles>.

The training and education debate in adult learning also extends into other professions. A South African medical study further explained the process of education in four components—training (skills acquisition), instruction (information acquisition), initiation (socialization and familiarization), and induction (thinking and problem solving)—where the learner must synthesize all four components to deal with unknown outcomes and circumstances when solving problems.⁶¹ Other workforce studies examining leader development through training and education focus on the desired endstate to determine the correct path to choose when debating education or training.

Andres Fortino states that education programs often include training and not the inverse.⁶² His thoughts are illustrated in table 1. Fortino's thoughts are based on the level of achievement a learner wants to attain. If a learner wants to equal those above him then he or she is trained and if they want to exceed those above them then education is required to stimulate a different mindset. Furthermore, he states that education makes one skillful at thinking and broadens one's ability to act after deep thought and analysis, while training makes one skillful at doing and enables one to act out of new habit and skills.⁶³ However, the onus is on the learner. They must have a desired goal and willingly play a role in their own development.

The development of this section on civilian models was based heavily on Merriam's understanding of Knowles' principles in her article "Andragogy and Self-Directed Learning: Pillars of Adult Learning Theory" published in *New Directions for Adult and Continuing Education* volume number 89. As an author of multiple publications on research and educational theories, Sharan can be deemed a subject matter expert and authority in the field. Her data had the most value and was triangulated between several sources including John M. Persyn and Cheryl J. Polson's "Evolution and Influence of Military Adult Education" published in volume 136 of *Beyond Training: The Rise of Adult Education in the Military* and in Christopher Pappas' *The Adult Learning Theory - Andragogy - of Malcolm Knowles* on the eLearning Industry website.

Table 1. Difference between Education and Training

THE DIFFERENCE BETWEEN EDUCATION AND TRAINING			
ATTRIBUTE	EDUCATION	TRAINING	DETERMINING FACTOR
Purpose of the Learning Experience	Acquire or deepen mindset or profession	Acquire new skills and knowledge	Do I want to be transformed into a different person or just be more skillful?
Evidence of Learning Success	Course grades, GPA	Testing, Certification, Job Performance	How will others and I know I was successful with my learning experience?
Credentials	Degrees, Graduate Certificates	Certificates and Licenses	Do I want to get a degree or a certificate?
Difficulty to Learn	Harder	Easier	Am I ready to undertake a lengthy and hard learning process or can I just do something quickly?
Length of the Learning Process	One to three years	Typically from one to five days, or several weeks	How long do I expect the learning process to take?
Persistence of the Learning Outcome	Lasts a lifetime	Short half-life, five years on average	How long should I expect the results of this learning to last or remain current?
Style of Learning	Draw out, mentoring by instructor	Drill in, developing skills, habits, practice	What can I expect my educational experience to be like?
Behavior After Learning Took Place	Acting after deep thought and analysis; broad	Acting out of new habits and skills; narrow	How will I behave after this learning experience?
Change	Skillful at thinking, Transformational, deeper, more radical	Skillful at doing; Shallower, more superficial	What kind of change am I looking for?
End Result	Makes you different from others, thoughtful and mindful, educated	Make you the same as others with the same training, measure up	What am I looking for as an end result of my learning experience?
Institutions Providing Learning Experience	Colleges and Universities	In-house seminars, training companies, self-taught	Where can I obtain this learning experience?
Examples	College courses and degree programs	Training seminars, job training	What are some examples of education and training?

Source: Andres Fortino, “Education versus Training: Selecting the Right Lifelong Learning Experience,” *The EvoLLLution*, July 16, 2012, accessed January 20, 2016, <http://evoLLLution.com/opinions/education-versus-training-selecting-the-right-lifelong-learning-experience/>.

Framework

The Knowledge Management Cognitive Pyramid⁶⁴ (see figure 6), was applied to assist in structuring the material obtained through the literature review. In Jennifer Rowley's paper, "The Wisdom Hierarchy: Representations of the DIKW Hierarchy," she explains Russell L. Ackoff's definitions of data, information, knowledge, and wisdom as the following:

1. Data are defined as symbols that represent properties of objects, events and their environment. They are the products of observation. But are of no use until they are in a useable (i.e. relevant) form. The difference between data and information is functional, not structural.
2. Information is contained in descriptions, answers to questions that begin with such words as who, what, when and how many. Information systems generate, store, retrieve and process data. Information is inferred from data.
3. Knowledge is know-how, and is what makes possible the transformation of information into instructions. Knowledge can be obtained either by transmission from another who has it, by instruction, or by extracting it from experience.
4. Intelligence is the ability to increase efficiency.
5. Wisdom is the ability to increase effectiveness. Wisdom adds value, which requires the mental function that we call judgement. The ethical and aesthetic values that this implies are inherent to the actor and are unique and personal.⁶⁵

The pyramid provided the framework to transition the data to information and on to developing wisdom via the creation of a shared understanding in chapters 4 and 5.

According to Rowley, "data can be used to create information; information can be used to create knowledge, and knowledge can be used to create wisdom."⁶⁶ This approach was applied to the research methodology and system of data analysis. It will be further explained in chapter 3.

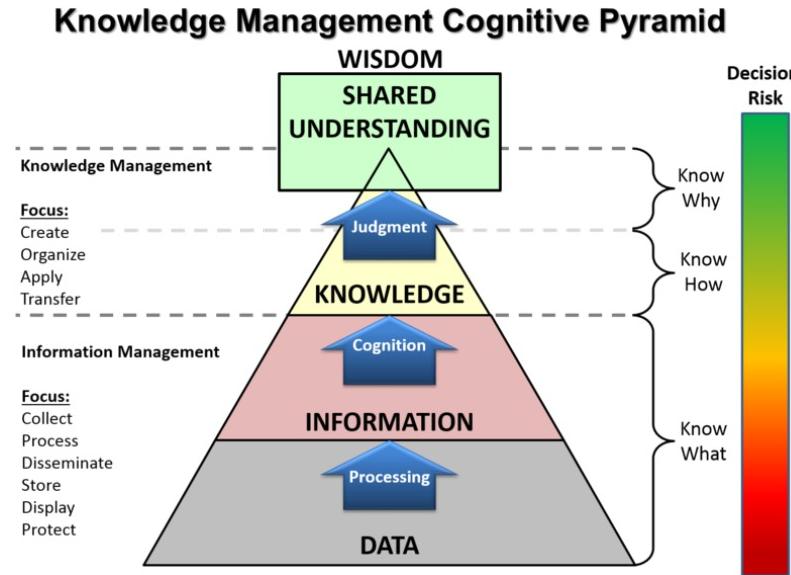


Figure 6. Knowledge Management Cognitive Pyramid

Source: Wikipedia, “Knowledge Management Cognitive Pyramid,” Wikipedia Foundation, June 2016, accessed March 12, 2017, https://en.wikipedia.org/wiki/DIKW_pyramid#/media/File:KM_Pyramid_Adaptation.png.

Summary

As portrayed in chapter 2’s literature review the art and science of war has been the topic of debate among military senior leaders dating back to the dominance of the Prussians in Europe and beyond. Most have agreed that both training in the science and education in the art of tactics are essential to leader development and success on the battlefield. However, it is believed that recent leader development models are failing to keep up with the complexity of the evolving operational environment. So how does one increase the rigor in leader development to meet the intellectual needs of the future? What are the requirements for the development of leaders? What specific institutional systems and processes must be adapted to provide the level of agility and adaptability the

Army requires? How does the Army continue to improve its training and education development? These are the questions the analysis in chapter 4 endeavored to answer.

This literature review highlighted some of the sources devoted to leader development, in terms of theory and execution in a learning environment. Each of the documents, whether written by civilian authors or by military leaders discusses leadership development concepts, and provides a variety of steps, stages, or methods for optimizing leader's KSA. Chapter 3 addresses the research methodologies used to analyze the problem statement and secondary research questions. It will discuss how the research was conducted to make recommendations for the way forward in future PME programs in Chapters 4 and 5. Further study will be required to develop new models, but there are missed opportunities that can be redressed to capitalize on previous work.

¹ Christopher Otero, "Reflections on Clausewitz and Jomini: A Discussion on Theory, MDMP, and Design in the Post OIF Army," *Small Wars Journal* (May 25, 2011), accessed April 16, 2017, <http://smallwarsjournal.com/jml/art/reflections-on-clausewitz-and-jomini-a-discussion-on-theory-mdmp-and-design-in-the-post-oif>.

² Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 86-87.

³ *The Constitution of the United States with Index, and The Declaration of Independence* (Washington, DC: National Center for Constitutional Studies, 2016), 6-7.

⁴ MAJ Paul H. Herbert, Leavenworth Papers No.16, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations* (Fort Leavenworth, KS: Combat Studies Institute, July 1988), accessed January 21, 2016, <http://cgsc.contentdm.oclc.org/cdm/singleitem/collection/p16040coll3/id/32/rec/3>, 45-46.

⁵ Gat, 60.

⁶ Knox and Murray, 70.

⁷ Schoy, "General Gerhard Von Scharnhorst: Mentor of Clausewitz and Father of the Prussian-German General Staff," 6.

⁸ Ibid., 1.

⁹ Knox and Murray, 160.

¹⁰ Ibid., 64.

¹¹ Schoy, “General Gerhard Von Scharnhorst: Mentor of Clausewitz and Father of the Prussian-German General Staff,” 10-14.

¹² Ibid., 6.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid., 14.

¹⁷ Ibid.

¹⁸ Ibid., 17-18.

¹⁹ Ibid., 18-19.

²⁰ Ibid., 20-21.

²¹ Ibid., 21.

²² Gat, 166-167.

²³ Claus Telp, *The Evolution of Operational Art, 1740-1831: from Fredrick the Great to Napoleon* (New York: Frank Cass, 2005), 52.

²⁴ Gat, 165.

²⁵ Bruce Palmer. *The 25-Year War: America’s Military Role in Vietnam* (Lexington: University Press of Kentucky, 1984), 138.

²⁶ John H. Cushman, “Fort Leavenworth, a Memoir: John H. Cushman, Lieutenant General, U.S. Army, Retired, September 2001,” vol. 1, WestPoint.org, accessed December 15, 2015, <http://www.west-point.org/publications/cushman/VolOne-1.pdf>, 26-28.

²⁷ William E. DePuy, Romie L. Brownlee, and William J. Mullen, *Changing an Army - An Oral History of General William E. DePuy, USA Retired* (Carlisle Barracks, PA: U.S. Military History Institute and Washington, DC: U.S. Army Center of Military History, 1988), 182-183.

²⁸ Cushman, 14.

²⁹ Ibid., 47.

³⁰ Herbert, 54.

³¹ DePuy, 107.

³² Cushman, 47.

³³ Donald E. Vandergriff, Institute of Land Warfare Paper No. 76, *Today's Training and Education (Development) Revolution: The Future is Now!* (Arlington, VA: Association of the United States Army, April 2010), accessed November 13, 2016, <http://ausar-web01.inetu.net/publications/ilw/Documents/LWP73.pdf>, 2-3.

³⁴ DePuy, 186.

³⁵ Ibid.

³⁶ Cushman, 35.

³⁷ Ibid., 44.

³⁸ Ibid.. 32-33.

³⁹ Deputy Chief of Staff G-3/5/7, Department of the Army, *Army Leaders for the 21st Century: Final Report* (Washington, DC: Headquarters, Department of the Army, November 22, 2006), accessed September 7, 2016, <http://cpol.army.mil/library/train/docs/AL21-Final.pdf>, A-3.

⁴⁰ Ibid., A-6.

⁴¹ Ibid., A-6 – A-7.

⁴² Ibid., A-7 – A-8.

⁴³ Chad R. Foster, “The Case for Outcomes-Based Training and Education,” *Armor* 118, no. 6 (2009): 19-23.

⁴⁴ Blaise Cornell-d'Echert. Jr., “Beyond Training: New Ideas for Military Forces Operating Beyond War,” in Jeffrey Zacharakis and Cheryl J. Polson, *Beyond Training: The Rise of Adult Education in the Military*, New Directions for Adult and Continuing Education No. 136 (San Francisco, CA: Jossey-Bass, 2012), 25.

⁴⁵ Ibid.

⁴⁶ William G. Spady, *Outcome-Based Education: Critical Issues and Answers* (Arlington, VA: American Association of School Administrators, 1994), 1-2.

⁴⁷ Cornell-d'Echert, 24.

⁴⁸ Department of the Army, Headquarters U.S. Army (HQDA), Training and Doctrine Command, TRADOC Pamphlet 525-8-2, *The US Army Learning Concept for 2015* (Fort Eustis, VA: Training and Doctrine Command, January 20, 2011), 52-57.

⁴⁹ Ibid.

⁵⁰ Nicholas Murray, Commentary on Thomas E. Ricks, "Finally, Official Recognition that CGSC is Broken, Busted and in the Ditch," *Foreign Policy Blog*, December 18, 2015, accessed January 22, 2016, <http://foreignpolicy.com/2015/12/18/finally-official-recognition-that-cgsc-is-broken-bust-and-in-the-ditch>.

⁵¹ Headquarters, Department of the Army, *Army Leader Development Strategy 2013* (Washington, DC: Government Printing Office, 2013), 3.

⁵² Ibid.

⁵³ Ibid., 11-12.

⁵⁴ Ibid., 11.

⁵⁵ John M. Persyn and Cheryl J. Polson. "Evolution and Influence of Military Adult Education," in Jeffrey Zacharakis and Cheryl J. Polson, *Beyond Training: The Rise of Adult Education in the Military*, New Directions for Adult and Continuing Education No. 136 (San Francisco, CA: Jossey-Bass, 2012), 5-16.

⁵⁶ Merriam, "Andragogy and Self-Directed Learning," 4.

⁵⁷ Christopher Pappas, "The Adult Learning Theory - Andragogy - of Malcolm Knowles," eLearning Industry, 2014, accessed January 7, 2017, <https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles>.

⁵⁸ Consumnes River College, "Adult Learning Theory: Overview," accessed January 7, 2017, <https://www.crc.losrios.edu/files/cassl/AdultLearningTheory.pdf>.

⁵⁹ Sharan B. Merriam, "Andragogy and Self-Directed Learning," 5.

⁶⁰ HQDA, TRADOC Pam 525-8-2, 14.

⁶¹ T. Gibbs, D. Brigden, D. Hellenberg, "The Education versus Training and the Skills versus Competency Debate," *South African Family Practice* 46, no 10 (2004): 5-6, accessed January 22, 2016, <http://www.tandfonline.com/doi/pdf/10.1080/20786204.2004.10873146>.

⁶² Andres Fortino, “Education versus Training: Selecting the Right Lifelong Learning Experience,” *The EvoLLLution*, July 16, 2012, accessed January 20, 2016, <http://evollution.com/opinions/education-versus-training-selecting-the-right-lifelong-learning-experience/>.

⁶³ Ibid.

⁶⁴ Wikipedia, “Knowledge Management Cognitive Pyramid,” Wikipedia Foundation, June 2016, accessed March 12, 2017, https://en.wikipedia.org/wiki/DIKW_\pyramid#/media/File:KM_Pyramid_Adaptation.png.

⁶⁵ Jennifer Rowley, “The Wisdom Hierarchy: Representations of the DIKW Hierarchy,” *Journal of Information Science* 33, no. 2 (2007): 166, accessed April 23, 2017, <https://pdfs.semanticscholar.org/088d/6a1fa59a8840ab0dff0f2e06d1c1fd7d4012.pdf>.

⁶⁶ Ibid., 164.

CHAPTER 3

METHODOLOGY

Introduction

The U.S. Army is Clausewitzian in nature with Jominian tendencies.¹ This means that the enterprise is an extension of politics and even though Army leaders like to focus on military operations they must also be capable of discourse with civilian leaders and the political administration. Political objectives determine military objectives and thus the amount of military power to be used in achieving them.

When whole communities go to war—whole peoples, and especially civilized peoples—the reason lies in some political situation, and the occasion is always due to some political object. War, therefore is an act of policy . . . Policy, then, will permeate all military operations, and, in so far as their violent nature will admit, it will have a continuous influence on them.²

Since Army leaders must be capable of operating in two distinct arenas, war and policy, their training and education must be structured to fully develop the KSA to deal with the complexities of the environments. Therefore, how does one increase the level of rigor in leader development to meet the Army's intellectual needs of the future?

Chapter 3 will look at how the author determined the problem statement and the procedure for data collection. It will further define an applied, exploratory, qualitative research methodology via a structured and focused case study comparison. Finally, it will discuss how the methodology will be conducted to make recommendations for the way forward in future PME programs in chapters 4 and 5. For this qualitative research case study, the Knowledge Management Cognitive Pyramid³ was applied to assist in structuring the material from data and information obtained in chapter 2 to developing wisdom through a shared understanding in chapters 4 and 5.

Data Collection and Classification

According to Patton, qualitative research methods consist of three kinds of data collection methods: “(1) in-depth, open-ended interviews; (2) direct observation; and (3) written documents.”⁴ For the purpose of this research, data collection was done through document analysis. After the base knowledge was acquired in the early stages of framing the problem, in depth data collection began. Additional materials on the history of leader development were studied to begin saturation in the early stages of leader development programs. Data was reviewed on Fredrick the Great, Scharnhorst, Georg Henrich von Berenhorst, Clausewitz, August Neidhardt von Gneisenau, and Helmuth von Moltke during the early years of Prussian reform and later the *Aufklarung*, which has been emulated in many U.S. Army leader development programs. Additionally, data was reviewed on the formation of the TRADOC to provide additional background on the struggle to synthesize leader development into a prescribed format. This data is all classified as historical requirements for leader development.

Next, data pertaining to the leader development models that have influenced the last 12 years was collected. Data on Army and civilian learning and leader development models was collected from Army publications and studies, think-tank reports, published articles, Internet sources, and ongoing initiatives within the institutional Army and scholarly circles. Data was triangulated for validity by referencing key resources for matching data. The study then incorporated pertinent information from select civilian studies involving training and education in leader development. This data is classified as learning and leader development models; it serves as the base data for case study comparison.

Research Methodology and Data Analysis

A qualitative research methodology was used to synthesize data into information. The research is also considered applied because its intent is to inform action, enhance decision-making, and apply knowledge to solve human and societal problems.⁵ The research in the qualitative case study is also exploratory because it will not offer conclusive solutions to the research problem but help build a better understanding of the problem.⁶ In essence, the research is being done through document analysis to build a better understanding of leader development to assist Army senior leaders in reforming PME's training and education to build the intellectual foundation needed for the future.

The data analysis is done via case study comparison that focused on aspects of the five learning models instituted over the last 12 years. Additionally, information on the historical requirements for leader development sources was used to analyze past theories and models on leader development in comparison to the five more recent learning models.

1. The Army Pentathlete Leader Model (2005)
2. Objectives Based Training and Education (2008)
3. The Army Learning Concept & Adaptive Learning Model (2011)
4. Army Leader Development Strategy/Model (2013)
5. Civilian Studies

The secondary research questions under the problem statement provided structure and focused the research objective in relation to each case study.

1. What were the requirements for the development of leaders when the learning model was created?

2. Did specific institutional systems and processes adapt to provide the agility and adaptability the Army required at that specific time?
3. How did the Army continue to improve its training and education development based on the learning model?

Data was collected from the case studies and systematic comparisons of each based on the aforementioned questions was conducted to report on the findings.⁷ This process assisted in turning information into knowledge. The models were evaluated for strengths, weaknesses, and adaptations based on the following criteria:

1. Applicability to all levels of leadership
2. Identification and assessment of leadership characteristics
3. Instruction methodologies
4. Relationships between training, education, and experience

The analysis of the case studies was then organized in a qualitative case study report.

Overall, this document is characterized as a qualitative research case study.

Reporting

According to Merriam, writing qualitative research reports is a daunting task. She advocates this for three reasons: (1) data collection and analysis is continuous and simultaneous; (2) qualitative research requires significant amounts of data that must be synthesized into a coherent narrative; and (3) there is no universal standard format for reporting.⁸ However, for the purpose of this document a modified version of an outline developed by Robert Stake in *The Art of Case Study Research* has been used to analyze each case study in chapter 4. The format is as follows:

1. Entry vignette
2. Issue Identification: purpose and method of study
3. Extensive narrative description to further define case and context
4. Development of issues
5. Descriptive detail, documents, quotations, triangulating data
6. Assertions
7. Closing vignette⁹

In this document the entry and closing vignettes in Stake's outline have been omitted to focus on analyzing how each of the five learning models progressed towards answering the secondary research questions and developing leaders.

Developing a Conclusion

The final step is presentation of thoughts, judgments, and recommendations in chapter 5 for application in future developments and developing wisdom through the creation of a shared understanding. As previously stated this qualitative research case study will not develop a new learning or leader development model nor will it offer conclusive solutions to the problem statement. Most recommendations will be based on missed opportunities from policy implementation that did or did not occur. They will redress items that could guide the Army towards its intellectual future and ways of increasing the rigor in PME in accordance with the views of current Army senior leadership.

Summary

To address the problem statement and secondary research questions the author conducted a literature review focused on the history of leader development and the leader

development and learning models that have affected the past twelve years. Because of the research, recommendations on ways to implement missed opportunities will be made to capitalize on past efforts. Further study will be required to develop new models.

Chapter 3 illustrated how the problem was framed and how the problem statement was determined. It described the data collection and research methodology used to turn the data into information and further synthesize it into the author's knowledge for incorporation in reporting. Finally, chapter 3 outlined how judgment would be used on the knowledge gained to create a shared understanding. Chapter 4 will begin to use the methodology to analyze to material discussed in chapter 2's literature review.

¹ Otero

² Clausewitz, 86-87.

³ Wikipedia, "Knowledge Management Cognitive Pyramid."

⁴ Patton, 10.

⁵ Ibid., 12.

⁶ John Dudovskiy, "Exploratory Research," *Research Methodology*, 2016, accessed October 24, 2016, <http://research-methodology.net/research-methodology/research-design/exploratory-research/>.

⁷ George and Bennett, 67.

⁸ Merriam, *Qualitative Research*, 237.

⁹ Robert E. Stake, *The Art of Case Study Research* (Thousand Oaks, CA: Sage Publications, 1995), 123.

CHAPTER 4

ANALYSIS

Introduction

Army senior leaders have addressed the training and education paradigm many times over the years and arrived at many different conclusions concerning leader development. The 2016 AWfC sought to address 20 enduring problems and solicit solutions from the force. AWfC number 10—Develop Agile and Adaptive Leaders is the current approach to figuring out how to shape the KSA of future Army senior leaders.¹ Ultimately leader development comes down to ensuring the appropriate balance of training and education with associated experience to fully enable a leader to operate in austere environments and within the realms of policy makers. Based on constitutional requirements, Army leaders must be capable of operating in two distinct arenas, war and policy. Therefore, their training and education must be structured to fully develop the KSA to deal with the complexities of the environments. So, how does one increase the level of rigor to broaden the educational aspects of leader development to meet the Army's intellectual needs of the future?

As mentioned in chapter 1, rigor in PME was examined by the Goldwater-Nichols Act in 1986. It was concerned with rigorous educational standards. In 1987, the Skelton Panel defined academic rigor as: (1) a challenging curriculum; (2) student accountability for mastering it; and (3) established standards against which student performance was measured.² The standards were both qualitative and quantitative.

Chapter 3 outlined the research methodology used to format chapters 4 and 5. The research was done through document analysis to build a better understanding of leader

development and to assist Army senior leaders in reforming PME training and education to build the intellectual foundation needed for the future. The case study research focused on aspects of the five learning and leader development models instituted over the last 12 years:

1. The Army Pentathlete Leader Model (2005)
2. Objectives Based Training and Education (2008)
3. The Army Learning Concept & Adaptive Learning Model (2011)
4. Army Leader Development Strategy/Model (2013)
5. Civilian Studies

The secondary research questions under the problem statement provided the designated structure and focused the research objective in relation to each case study.

1. What were the requirements for the development of leaders when the learning model was created?
2. Did specific institutional systems and processes adapt to provide the agility and adaptability the Army required at that specific time?
3. How did the Army continue to improve its training and education development based on the learning model?

Chapter 4 consists of the systematic comparison of each model based on the aforementioned questions in order to report on the findings.³ This process assisted in turning information into knowledge. Answers to the research questions were acquired by addressing each learning models' ability to develop the agility and adaptiveness in leaders conducting mission command and operating within the business rules that govern the enterprise and the development of policy. The study looked at the numerous studies

that have been conducted over the years and discussed the recommendations made, where implementation has or has not occurred, and analyzed strengths and weaknesses based on the criteria established in chapter 3. The analysis will not develop a new learning or leader development model nor offer conclusive solutions to the problem statement. The study also redressed missed opportunities that could guide the Army towards its intellectual future and meeting the intent of current Army senior leadership. The analysis of the case studies will be organized in a qualitative case study report for recommendations in chapter 5.

The Army Pentathlete Leader Model—2005

In short, Army leaders in this century need to be pentathletes, multi-skilled leaders who can thrive in uncertain and complex operating environments... innovative and adaptive leaders who are expert in the art and science of the profession of arms. The Army needs leaders who are decisive, innovative, adaptive, culturally astute, effective communicators and dedicated to life-long learning.⁴

What Were the Requirements for the Development of Leaders When the Learning Model was Created?

In 2005, America was a nation at war facing a diverse set of security challenges. The U.S. military was at the forefront of conventional warfare but dealing with an unconventional threat. Adversaries moved away from challenging the United States through traditional military action and developed asymmetric capabilities and methods, thus changing the character of warfare. To deal with the new threat the United States sought to develop an adaptable, global approach that acknowledged the limits of intelligence, anticipated surprises, and positioned the country to handle strategic uncertainty.⁵ Therefore, the 2005 *National Defense Strategy* emphasized the importance of deterrence by influencing events before the scope of challenges exceeded the

capability of the current force. To cope with the asymmetric threat GEN Peter J. Schoomaker had been brought in from retirement in 2003 to serve as the first Special Forces trained CSA. With him came a push for versatility and a drive to make the conventional Army more like the Special Forces, thus the pentathlete concept was created.

In November 2006, the final report from RETAL was published and recognized that “future programs must develop versatile leaders with the skills and experiences needed to succeed in evolving military, civil-military, and business enterprise settings.”⁶ It also deduced that leader competencies should change based on the nature of the post-9/11 threat. Thus, the pentathlete leader was born as indicated in chapter 2 of this study.

The report made recommendations to “create, expand, and adjust” programs and processes for three cohorts. For civilians, it was recommended that an identity be established by creating civilian corps management and development systems to streamline civilian leader development. The report recommended that the understanding of how to maximize the effectiveness of NCOs while maintaining the warrior ethos be further studied and the development of an umbrella “Warrior University” to integrate and synchronize distributed and/or distance learning.⁷ Finally, for officers, it recommended expanding competencies to full spectrum and addressing identified gaps in mental agility, cultural awareness, governance, enterprise management, and strategic leadership.⁸ The conclusion was that a shift in the current leader development process was required to achieve the desired endstate of full spectrum operations in each cohort. Additionally, a periodic review of leader development requirements was established to ensure capabilities and competencies aligned with the needs of the time. For this purpose, mental

agility, enterprise management, strategic leadership, the periodic review of requirements, and the “Warrior University” were examined.⁹

Did Specific Institutional Systems and Processes Adapt to Provide the Agility and Adaptability the Army Required at that Specific Time?

Two years after publication of RETAL’s final report, in October of 2008, the Army published Field Manual 6-22, *Army Leadership: Competent, Confident, and Agile*. It was a significant institutional adaptation in doctrine to focus the force on GEN Schoomaker’s Pentathlete and at the time what were believed to be the key KSA Army leaders would require for the future. Chapter 6 of Field Manual 6-22 presented the conceptual components affecting leader intelligence and considered the components to be “agility, judgment, innovation, interpersonal tact, and domain knowledge.”¹⁰ According to the doctrine:

Mental agility is a flexibility of mind, a tendency to anticipate or adapt to uncertain or changing situations.

Judgment requires having a capacity to assess situations or circumstances shrewdly and to draw feasible conclusions.

Innovation describes the Army leader’s ability to introduce something new for the first time when needed or an opportunity exists.

Interpersonal tact combines effectively acting with others, accepting the character, reactions, and the motives of oneself and others with recognizing diversity and displaying self-control, balance, and stability in all situations.

Domain knowledge requires possessing facts, beliefs, and logical assumptions in many areas.¹¹

RETAL’s recommendation for periodic reviews of leader development requirements were established long before publication of the report, but neglected during the last 16 years of conflict. Figure 7 displays Army leader development studies

conducted between 1970 and 2010. In 1986, the Goldwater-Nichols Act mandated what type of education joint officers must have. In the following year, 1987, Representative Ike Skelton formed a panel to conduct a comprehensive review of Joint Professional Military Education (JPME); it was his goal to recommend how the education should be formatted. He provided oversight of the entire military's PME system until he left Congress in 2010. It was his focus and direction in curriculum, service ratios, and joint faculty assignments that led to much of the improvement in JPME during his tenure.¹²

Out of Rep. Skelton's work the Officer Professional Military Education Policy and the chairman's responsibility to execute the Process for Accreditation of Joint Education was born. The standards for review that were established were annually for general officer curriculum and every five years for all other JPME courses. However, in 2009, the Process for Accreditation of Joint Education timeline was extended to every six years and the certification requirement was eliminated from the process. Also based on the Chairman of the Joint Chiefs of Staff Instruction 1800.01D, Subject: Officer Professional Military Education Policy (OPMEP), dated July 15, 2009, including Change 1 dated December 15, 2011 other curriculum reviews were reduced to "as needed" and conducted internally due to operational tempo.¹³ Another issue with Rep. Skelton's work was the fact that it did not address the training and education at all ranks, the focus on joint education meant that the individual services were left to guide the development of officers, below O-4, and NCOs.¹⁴ Now, without a congressional champion, little has been done to ensure the training and education conveyed in each service is meeting the needs of the service or the joint force of the future.

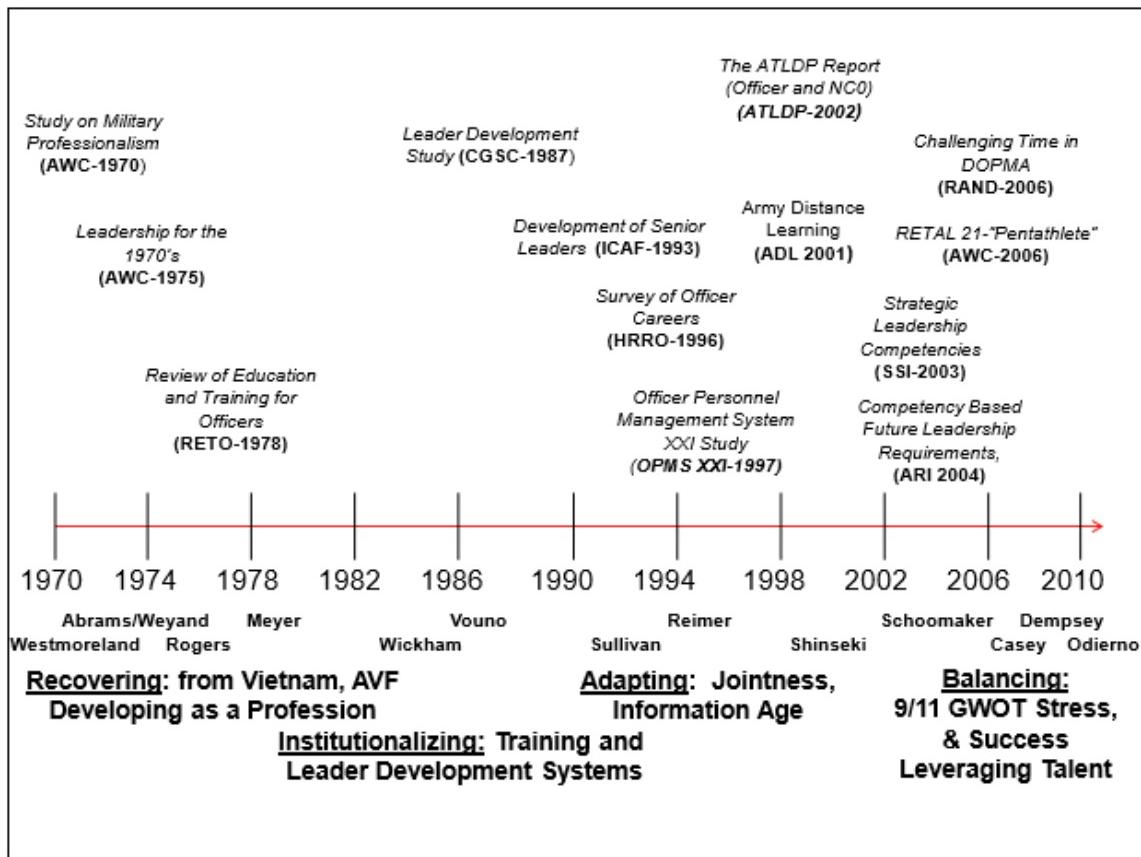


Figure 7. Army Leader Development Studies, 1907-2010

Source: Mark L. Adamshick, *Chief of Staff of the Army Leader Development Task Force Final Report* (West Point, NY: Center for Army Profession and Ethic, June 14, 2013), accessed September 1, 2016, <http://cape.army.mil/repository/CSA%20LDTF%20Final%20Report%20062113.pdf>, 4.

How Did the Army Continue to Improve its Training and Education Development Based on the Specific Learning Model?

In regards to the “Warrior University,”¹⁵ The Army University is finally coming to fruition. It is the primary way the Army is trying to improve its training and education development. Even though it was not initiated until 2015 its basis was rooted in the

recommendations made by the RETAL based on the GEN Schoomaker's pentathlete model.

The Air University, which was established in 1949, is the model being emulated by TRADOC as it seeks to streamline education through soldiers', NCOs', and officers' careers. TRADOC finally recognized the need based on the Army's realization that five key issues were restricting the growth of the educational enterprise. These issues as identified in The Army University White Paper published February 25, 2015 are: (1) the industrial age legacy or tie to the "competency theory" approach to training; (2) an incoherent focus throughout the schools, centers, and institutes of Army learning to coalesce ideas; (3) lack of identity or branding; (4) a prestige gap in military education due to lack of credentialing and confusion in comparison to civilian academia; and (5) poor accreditation by the Department of Education.¹⁶ If The Army University endeavors to increase the academic rigor, break the assembly line approach, and establish Ivy League prestige the starting point must be the CGSC. CGSC must build the knowledge base for future strategic leadership in topics such as the theory of war and strategy, continue the development of doctrinal skills and tactics required for staff officers, as well as enable assessment of attributes required for potential senior leadership service.¹⁷ As junior grade officers, NCOs and soldiers the proportions of training and education should be more heavily weighted towards training and CGSC is where an officer should cross the threshold from professional military training to PME.

Since The Army University White Paper mentioned breaking the tie to the competency theory, it must be reexamined. During GEN DePuy's and LTG Cushman's tenure in the 1970s the theory centered on training a person to execute a specific task

using a set method or way. Today, the theory has morphed into Competency Based Education. This hybrid model still focuses on a student's ability to perform to a desired outcome through a set of pre-defined learning objectives or steps; however, students are evaluated on what is learned in the time it takes to reach the desired outcome, as opposed to learning being achieved through completion of work within a specified timeline or environment.¹⁸ Due to the demanding nature of the military, a program allotting infinite time would not be optimum for success. Additionally, time can be a constraint that increases rigor in an academic atmosphere; therefore, alleviating that variable would not achieve the desired affect current leadership is striving to gain.

Objectives Based Training and Education—2008

What the military really needs is a model or approach to developing human potential for military operations that is not overly sensitive to requirements of the current operational environment. The model should reflect the realities of performance in any military environment. Rarely is successful performance a question of doing a task correctly; more likely it is a question of achieving a satisfactory end state or objective.¹⁹

What Were the Requirements for the Development of Leaders When the Learning Model was Created?

The United States completed the surge in 2007. In 2008, the strategic environment was defined by a global struggle against a violent extremist ideology that sought to overturn the international state system.²⁰ To deal with the threat the United States sought a whole of government approach and GEN George Casey was the CSA steering the enterprise. Risk reduction was done by shaping the decisions regarding the equipment and capabilities developed and the security cooperation, reassurance, dissuasion, deterrence, and operational activities pursued. The Department of Defense was required to develop the military capability and capacity to hedge against uncertainty, and the

institutional agility and flexibility to plan early and respond effectively alongside interdepartmental, non-governmental, and international partners.²¹

OBTE debuted in 2008 and was about learning to achieve the commander's intent and not the steps along the path to get there. The concept created a mutually dependent relationship between training and education where each was a necessity to develop soldiers and enable mission command. When OBTE was created the requirement for leader development was: "Learners are actively encouraged to think, to own the problem as well as the solution, and to do this while undergoing progressively increasing levels of stress."²² OBTE effectively created an overlap in the application of training and education allowing learners to apply critical and creative thinking measures in skills and tasks. It empowered leaders through initiative and accountability and forced trainers to achieve results.²³

Did Specific Institutional Systems and Processes Adapt to Provide the Agility and Adaptability the Army Required at that Specific Time?

OBTE was highly effective at developing company and battalion level leaders. It centered on creative thinking to build competency in tactical and operational level tasks and skills. The model was adopted most by branch specific schoolhouses where the Captain's Career Course and Basic Officer Leadership Courses were taught as well as in the NCO Educational System. The method imbued captains and lieutenants with the creative and critical thinking skills to execute mission command, the Warfighting Function, in theaters of conflict. However, the issue with OBTE was that it was not conducive to application at strategic or operational levels where critical thinking skills in fiduciary, force management, enterprise governance, and political arenas are necessary.

In his article, “Managing the Gray Zone is a Gray Matter Challenge,” published in the *Small Wars Journal* in July 2016, MAJ Larry Kay recommended the Army: “Change the culture of categorizing officers as ‘the best’ and/or ‘the brightest’ to ‘operationally excellent’ and/or ‘creatively excellent,’ deliberately distinguishing them for what they are best suited for in serving the Army, focused specifically on managing gray zones.”²⁴ He defined the operationally excellent as those that seek and are selected for command positions, and the creatively excellent as those who seek educational or broadening experience over command opportunities.²⁵ This distinction between the two types of leaders would have been highly effective during the use of OBTE. OBTE was best suited to classify company grade officers as operationally or creatively excellent since it emphasized creative and critical thinking in tactical and operational scenarios. From this initial assessment, broadening and educational experiences could be tailored to affect the desired career path, KSAs, or hone strategic traits for future senior leaders.

How Did the Army Continue to Improve its Training and Education Development Based on the Specific Learning Model?

At the time OBTE debuted Field Manual 6-22 addressed strategic leaders as the Army’s ultimate multiskilled pentathletes. According to the manual strategic leaders “represent a finely balanced combination of high-level thinkers, accomplished warfighters, and geopolitical military experts. Strategic leaders simultaneously sustain the Army’s culture, envision the future force, and convey that vision to a wide audience.”²⁶ OBTE set the stage for assessing the KSA of majors and company grade officers that can be applied to determining strategic leadership potential. OBTE was the entry point for the application of creative and critical thinking that should be continuously applied in

training and education throughout all phases of a soldier's career. From this point, the Army went on to develop the ALC and ALM, which aligns training and educational gates throughout a soldier's career.

The Army Learning Concept and Adaptive Learning Model—2011

As we exit from our second war in this new century, many in authority sense something is missing in American strategic generalship. Wars in Iraq and Afghanistan have shown that the services have come up short at the strategic level, the level at which national security and political objectives are translated into war-winning plans and policies.²⁷

What Were the Requirements for the Development of Leaders When the Learning Model was Created?

In 2011, GEN Martin Dempsey, went from commander of TRADOC to the CSA and later the Chairman of the Joint Chiefs of Staff. As CSA and Chairman of the Joint Chiefs of Staff, he was charged with withdrawing U.S. forces from conflict. Even though the United States remained the world's dominant force in conventional warfare the number of state and non-state actors was growing and their presence was felt throughout the world. The shift in power bases exemplified an "evolution to a 'multi-nodal' world characterized more by shifting, interest-driven coalitions based on diplomatic, military, and economic power, than by rigid security competition between opposing blocs."²⁸

There were global and regional powers exhibiting nationalism and assertiveness that challenged the resilience and ability of strategic leadership in the United States. Therefore, in 2011, the Army published the ALC for 2015; it contained the ALM and was primarily developed during GEN Dempsey's tenure at TRADOC. His new position as CSA made it all too easy to accept the plan as an entirety. Together, the ALC and ALM captured the interdependency between training and education and the need to maintain

relevance in both throughout one's career. The requirement at the time was to develop critical thinking skills to enable operations in the complex environments of future conflict and the means to do so was to embrace adult learning methodologies.²⁹ This was not a military revolution, but a return to the LTG Jack Cushman and GEN DePuy debate of the 1970s. It was the tension between LTG Cushman and GEN DePuy that has enabled future leaders to tailor the CGSOC at CAC in regards to the understanding of training and education.

Did Specific Institutional Systems and Processes Adapt to Provide the Agility and Adaptability the Army Required at that Specific Time?

In Scharnhorst's eyes, there were three components to the success of pedagogical systems: the method of instruction, the qualification of the instructor, and the commitment of the student.³⁰ According to John Persyn and Cheryl Polson, the ALC sought to do three main things to increase the effectiveness of the learning environment: (1) reduce or eliminate instructor led slide presentation lectures; (2) enhance the relevance of learning by ensuring at the right time and place in a career; and (3) enhance student motivation in the learning process by ensuring it is current and applicable to future operational and strategic environments.³¹ This is very similar to Scharnhorst's view. Persyn and Polson go on to argue that the one thing the Army can do to ensure service members of all ranks are capable of meeting the critical thinking and problem solving challenges of the future is to continue implementing adult learning methodologies and educational strategies.³² From the ALC the Army began adapt its educational systems by embracing and applying adult learning theories in the learning environments of PME.

In Carey Walker's and Matthew Bonnot's article, "A Better Approach to Developing Leaders," they advocated the adoption of a two-phased approach to assist the Army develop future generations of leaders.³³ Their two-phased approach centered on leader development in the operational domain that is driven at the unit level. The two phases in the approach are the use of experience as a developmental tool and the meaning making cycle. According to Walker and Bonnot using experience as a developmental tool meant, "creating learning opportunities by placing subordinate leaders into challenging assignments to stretch their thinking and behavior."³⁴ The meaning making cycle occurred when one sought to make sense of an experience through observation, feedback, dialogue, and reflection to create personal understanding.³⁵

However, in order to capitalize on experiential learning the experiences used must go through an assessment and integration phase to ensure individual and unit needs are part of the learning opportunities the experience encompasses.³⁶ During this phase, individual needs are assessed to ensure experiential learning is at the appropriate competency level and proper goals or motivation level within the staged self-directed learning model³⁷ developed by Gerald Grow in the mid-1990s. Unit needs are assessed to ensure experiences embodied mission command, achieved unit readiness, and filled critical positions.³⁸ Both individual and unit needs are required to be integrated and leveraged in learning opportunities to optimize experiential learning.³⁹

How Did the Army Continue to Improve its Training and Education Development Based on the Specific Learning Model?

To address the training and education needed to build the KSA needed to develop senior leaders they are constantly layered throughout PME as identified in the Continuous

Adaptive Learning Model in the ALC. However, the balance in the proportions of art and science, training and education must be adjusted through the phases of PME at different points in one's career to meet the needs of the particular milestone. There is a horizontal asymptotic relationship between training and education.⁴⁰ This relationship exemplifies that the path can move in either direction dependent upon a student's career path but training and education never reach zero as lifelong learners. The one thing the ALC failed to capitalize on was the role experience played in the learning environment and development of leaders. Experience accentuates the learning environment and continues to grow in relation to both training and education. They are all mutually beneficial to the development of leaders. The Army went on to improve its training and education development by emphasizing the role experience played in leader development when the ALDS was published in 2013.

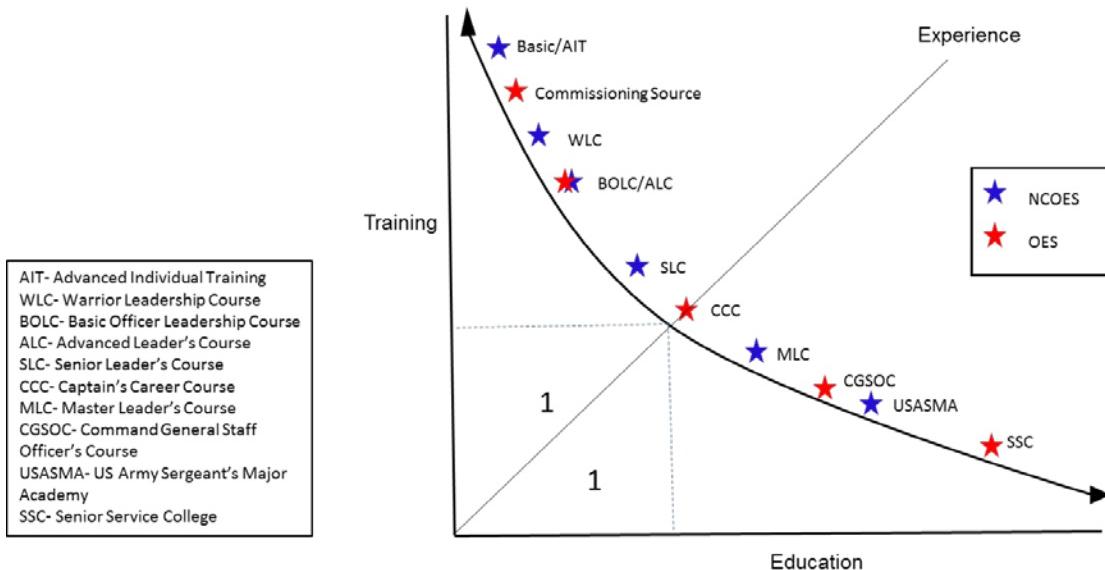


Figure 8. Training—Education and Experience Asymptote

Source: Created by author.

Army Leader Development Strategy—2013

Leader development is an individual responsibility and it must be purposefully guided by the institution, leaders, and mentors. Through this process, the synthesis of an individual's training, education, and experience contribute to individual growth over the course of a lifetime.⁴¹

What Were the Requirements for the Development of Leaders When the Learning Model was Created?

In 2013, the United States sought to remain prepared to engage the world as the complexity of problems and proliferation of power continued to usurp the dominance of previous generations' power states. Tensions continued to rise with North Korea, terror struck at the Boston Marathon, and the cyber domain was rapidly becoming the new battlefield. The speed of information and development of new technology called for greater flexibility, creativity, and situational understanding. "Reliance on dogmatic approaches to policy or ignorance of international and historical context will provide certain failure."⁴² The ability to contend with complex international problems would set the stage for future success on the global platform and the United States required more agile and adaptable leaders at all levels of command. Therefore, CSA, GEN Raymond Odierno, and TRADOC Commander, GEN Robert Cone, transitioned the ALC into the ALDS to capitalize on the experience the force had gained from the years of conflict.

In 2013, after the implementation of the ALDS, LTG Huntoon and GEN (RET) Franks led the Chief of Staff of the Army's Leader Development Task Force in assessing the state of officer leader development programs. They were to do so within the scope and framework of the three domains of ALDS—operational, institutional, and self-study learning environments. The purpose of their assessment was: "(1) to make recommendations to reinforce and sustain practices that enabled a decade of superb

battlefield performance; (2) to reestablish standards as appropriate; and (3) to boldly transform Army systems to best educate, train and inspire leaders for the future.”⁴³ The study recommended the requirements for leaders’ development were to embed mission command and to strengthen the Army’s focus on the development of others. It also recommended that the officer career management system be transformed to capitalize on the agility and adaptability created in leaders.

According to LTG Huntoon’s study, mission command as a philosophy and Warfighting Function had proven its worth in operations in Iraq and Afghanistan. However, in a garrison environment the application of the philosophy was not as well understood. Therefore, all learning domains within the ALDS “must continue to find ways to better teach Mission Command and demonstrate its application in all duties . . . Implementing Mission Command requires a comprehensive and continuous education and training campaign throughout the force.”⁴⁴ To date, institutional domains have fully embraced mission command and it has been embedded deeply in the curriculum. However, knowing the subject did not entail application of its principles. The application of mission command led to the second recommendation, developing others.

In order to apply mission command, leaders at all levels must develop subordinates in the philosophy and Warfighting Function in operational environments and garrison. This required a willingness to accept prudent risk in operations and failure in the garrison environment. “Professions that fail to develop others forfeit learning opportunities that allow organizations to excel when faced with challenges, crises, or transition.”⁴⁵ Over the past 16 years the operational tempo diminished the teach, coach, and mentor phenomena in the development of subordinates and increasingly relied on the

experience gained in operations. Leaders viewed leader development as TRADOC's responsibility and failed to teach, coach, and mentor junior leaders on the job. Operational experience equated to education and was rewarded over institutional education and broadening, which led to the third recommendation, the transformation of the officer career management system.

Did Specific Institutional Systems and Processes Adapt to Provide the Agility and Adaptability the Army Required at that Specific Time?

LTG Huntoon's report stated, "The Army must implement development of others, both by an individual commitment to develop others, and by an Army institutional commitment to assign the very best to teach and mentor PME in the institution, to include pre-commissioning sources, in order to succeed in 2020."⁴⁶ In 1971, the Officer Personnel Management System (OPMS) was established to optimize the utilization of officers with specific skillsets and desires. OPMS pooled officers into three groups: (1) qualified in high command and managerial positions; (2) experts in specialty areas; and (3) those with professional qualifications other than numbers one and two.⁴⁷ For the last 46 years, this has been the hierarchy of promotion standards in the Army and has failed to accentuate the importance of education. Therefore, those who rise to higher educational standards and have been dedicated to the development of others in the institutional domain usually plateau at the rank of lieutenant colonel or colonel.

Since knowledge is the foundation of professions—expansions of that knowledge being fundamental to a profession's evolutionary success—it is essential to have valued members whose role is to create and develop expert knowledge in addition to those who apply professional expertise. If the Army is to flourish as a profession, both types of Army Professionals need to be equally esteemed, and to have equally bright futures. Unfortunately, this is not the case today nor without deep cultural change is it likely to be so in the future.⁴⁸

To overcome the career-ending stigma associated with teaching the Army must change the OPMS to reward those who dedicate themselves to the development of the future generations of leaders appropriately. A recent recommendation from Colonels Valery C. Keaveny, Jr., and Michael R. Fenzel in *Military Review* recommended that once officers reach the strategic level their career fields or paths should be mapped in accordance with the strategic traits they exemplify. The four areas they identify with are: “Teachers, Organizers, Commanders, and Communicators”⁴⁹ (see figure 9). This recommendation is not only applicable to strategic leaders but to rising field grade officers as they enter the CGSC. At this point in an officer’s career, the KSAs relating to the aforementioned strategic traits must be identified and molded to allow select officers to begin broadening in the career path they identify most with or shift to specialized functional areas. Additionally, by recognizing the dominant trait, developmental focus can be adjusted to strengthen lesser traits in order to minimize stove piping in career fields.

If we are sincere about the need to find and nurture strategic genius, then the system should elevate many more strategically gifted officers to positions of real influence. To find and nurture true strategic genius, we must establish a rigorous, intellectually accountable, eliminative system for selecting, educating and professionally rewarding those few whom the Army needs to anticipate, plan, advise and command at the strategic level of war, and then reward their intellectual excellence with promotion to the highest decision-making positions in the military.⁵⁰

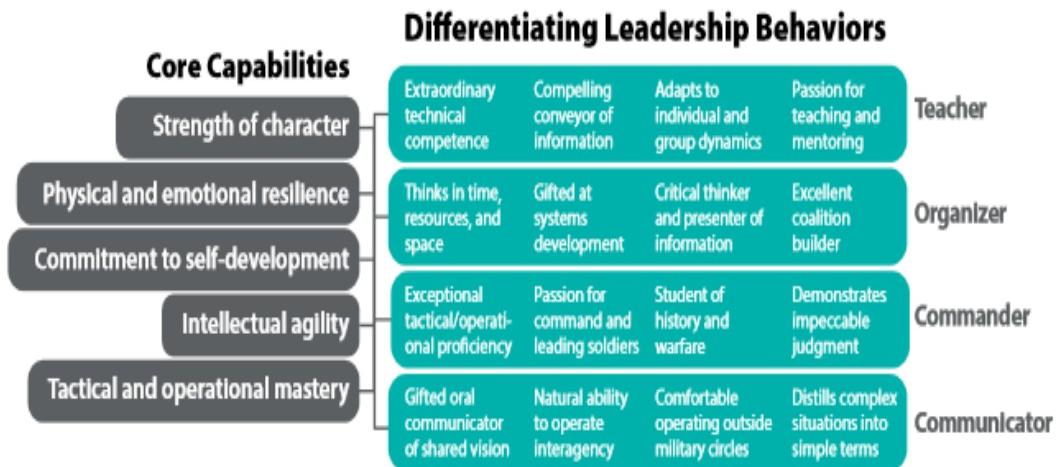


Figure 9. Strategic Traits to Career Path Map

Source: Valery C. Keaveny and Michael R. Fenzel, “The Area under the Curve, Developing Strategic Leaders to Win in a Complex World,” *Military Review* 96, no. 6 (November-December 2016): 83.

How Did the Army Continue to Improve its Training and Education Development Based on the Specific Learning Model?

Several other recommendations regarding the Officer Career Management System were made in LTG Huntoon’s report and each fall in the realm of the Army’s recently established Talent Management office under the Department of the Army G-1. Since 2015 the Talent Management office has instituted several of LTG Huntoon’s recommendations including: reimplementing the “Green Pages” concept in the new AIM2 pilot to provide officers greater control over their career progression; bolstering the Multi-Source Assessment and Feedback tool to assess strategic leadership potential; and the most important implementation, which was the establishment of the Talent Management office which can be equated to Huntoon’s Leader Assignment and Development Panel.⁵¹

The critical piece missing from the implementation of LTG Huntoon's recommendations in regard to this area is the establishment of an assessment center at CGSC.⁵² Beginning in 2015 CGSC once again became board selected for attendance at the resident course. This elevated the bar for attendees; however, the assessment of the KSA required for senior leadership is still missing. The opportune time for this assessment is at the O-4/major level. However, the standards for grading and feedback on written work and briefings lacks emphasis and timeliness from instructors. This is partially due to the size of classes but, from the author's experience, it is more due to the reluctance to grade anyone below a B for fear of damaging a career or being the bad guy. The establishment of a Bell curve in grading is critical to assessing who has the knowledge potential and attributes for future assignments. Additionally, it can help in determining strategic trait mapping for career path shifts.

Civilian Models

For the military, adult education is a process that mandates individual growth, maturity, and learning in order to achieve the collective goals of the organization. This process is predicated on the belief that human capital is the most valuable asset when compared to technological capital, financial capital, and built capital.⁵³

What Were the Requirements for the Development of Leaders When the Learning Model was Created?

In 1984, the Cold War was ongoing and the Space Race is booming as nation states tussled over global dominance. The focus in the United States was to be bigger, better, faster, and smarter than the Russians. Additionally, President Ronald Reagan saw tensions continue to flare in Beirut, Lebanon after the bombing of the Marine Corps Barracks, kidnapping of the Central Intelligence Agency chief, and bombing of the U.S.

Embassy by Hezbollah. Within the United States, the unemployment rate dropped to 7.2 percent, which was the same rate it was when the recession started in June 1981.⁵⁴ The nation saw an increased need for intellect that would enable competition in global affairs and economic stability at home. Thus, there was a surge in adult learning theory.

As previously mentioned, Scharnhorst's three components to the success of pedagogical systems were the method of instruction, the qualification of the instructor, and the commitment of the student.⁵⁵ He believed that dialogue and discourse had key supporting roles in the efforts to broaden Prussian intellect. Also, as previously mentioned, the *Review of the Education and Training of Officers* conducted in 1978 called for the inclusion of adult education principles to enhance learning. The Officer Professional Military Education Policy that came out of the Skelton Panel of 1987 further emphasized including adult learning principles in military education. Its goals were the inclusion of:

experience based active learning incorporating realistic and collaborative problem solving activities such as simulations and war games; self-directed learning through student engagement in independent research projects and greater involvement in elective coursework; and current and relevant curriculum topics addressing real-world applications.⁵⁶

These same components are the essence of Knowles' Adult Learning Theory or Andragogy. However, it was not until 2011 that Adult Learning Theory was truly embraced in the Army and applied to the learning environments within PME via the ALC for 2015.

Did Specific Institutional Systems and Processes Adapt to Provide the Agility and Adaptability the Army Required at that Specific Time?

According to Merriam, Knowles' version of andragogy focuses on a learner who is self-motivated and growth oriented; however, every person is shaped by culture and society, their personal history, and effects of societal perceptions and stereotypes that have influenced the individuals learning methods and placement.⁵⁷ In the same period Knowles was developing his theory, Self-Directed Learning (SDL) was also popularized in adult learning fields. It was categorized as "learning that is widespread, that occurs as part of adults' everyday life, and that is systematic yet, does not depend on an instructor or a classroom."⁵⁸ Essentially, SDL is experiential learning. In the mid-1990s, Gerald Grow took adult learning to another level by furthering SDL into the Staged Self Directed Learning Model (SSDL). His model combined SDL with the basic principles and characteristics of andragogy as defined by Knowles and the Situational Leadership Model of Paul Hersey and Kenneth Blanchard and focused the instructor's role in guiding learners through stages of development based on their level of motivation or willingness to learn⁵⁹ (see figure 10). Application of this model in conjunction with Knowles' principles meant that the military chose to adapt institutional systems to provide instructors the flexibility to tailor lessons based on assessments of students' drive and the contribution to discussion.

	Student	Teacher	Examples
Stage 1	Dependent	Authority, Coach	Coaching with immediate feedback. Drill. Informational lecture. Overcoming deficiencies and resistance.
Stage 2	Interested	Motivator, guide	Inspiring lecture plus guided discussion. Goal-setting and learning strategies.
Stage 3	Involved	Facilitator	Discussion facilitated by teacher who participates as equal. Seminar. Group projects.
Stage 4	Self-directed	Consultant, delegator	Internship, dissertation, individual work or self-directed study-group.

Figure 10. The Staged Self Directed Learning Model

Source: Gerald O. Grow, “Teaching Learners to be Self-Directed,” *Adult Education Quarterly* 3, no. 41 (Spring 1991): 129.

How Did the Army Continue to Improve its Training and Education Development Based on the Specific Learning Model?

Officer PME can be categorized according to the following stages: Stage 1—Basic Officer Leadership Course; Stage 2—Captain’s Career Course; Stage 3—CGSC; and a mixture of Stage 3 and 4—Senior Service College. PME is structured in a manner that provides institutional education approximately every five years in an officer’s career; therefore, it was essential that instructors set the stage for continued self-development to fill the gap between institutional learning. The SSDL Model capitalized on experiential learning by embracing structured discourse in the classroom environment. Therefore, as a career service member, a professional and lifelong learner, a lot of the

onus to learn was the responsibility of the individual and the instructor guided or facilitated discourse as PME advanced stages of learning.

Summary

To address the problem statement and secondary research questions a literature review focused on the history of leader development and the leader development and learning models that have affected the author's career was conducted in chapter 2. Chapter 3 illustrated how the problem was framed and how the problem statement was determined. It described the data collection and research methodology used to turn the data into information and further synthesize it into the author's knowledge for incorporation in reporting. Finally, chapter 3 outlined how judgment would be used on the knowledge gained to create a shared understanding. Further study will be required to develop new models.

Analysis of leader development models discussed in chapter 2's literature review was conducted in chapter 4. The chapter analyzed the requirements for leader development at the time the model was in use, how institutional systems and processes adapted to meet the needs of the Army at the time, and how the Army continued to improve based on the model. It used the methodology outlined in chapter 3 to structure the way the information transformed from information to knowledge. Chapter 5 will offer recommendations on ways to capitalize on areas that were missed when implementing models or moving from one model to the next during transition phases.

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² U.S. Congress, House, Committee on Armed Services, *Report of the Panel on Military Education of the One Hundredth Congress of the Committee on Armed Services House of Representatives* 161.

³ George and Bennett, 67.

⁴ Dr. Francis J. Harvey, Secretary of the Army, Speech, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2005, quoted in Headquarters, Department of the Army, (HQDA) Field Manual (FM) 6-22, *Army Leadership: Competent, Confident, Agile* (Washington, DC: Government Printing Office, 2006), 7-1.

⁵ Secretary of Defense, *The National Defense Strategy of The United States of America* (Washington, DC: Department of Defense, March 2005), iii-2.

⁶ Deputy Chief of Staff G-3/5/7, Department of the Army, *Army Leaders for the 21st Century*, A-4.

⁷ Ibid., A-8.

⁸ Ibid., A-7 – A-8.

⁹ Ibid., A-8.

¹⁰ HQDA, FM 6-22, 6-1.

¹¹ Ibid., 6-1 – 6-5.

¹² John T. Kuehn, “I Liked Ike...Whence Comes Another? Why PME Needs a Congressional Advocate,” *Joint Force Quarterly* 83 (4th Quarter 2016): 40-43.

¹³ Director, Joint Staff, Chairman of the Joint Chiefs of Staff Notice 1800.01D, Change 1, Subject: Officer Professional Military Education Policy (OPMEP), Joint Chiefs of Staff, Washington, DC, September 15, 2011, C1-C4.

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¹⁹ Cornell-d’Echert, 17-27.

²⁰ Secretary of Defense, *National Defense Strategy* (Washington, DC: Department of Defense, June 2008), 2-5.

²¹ Ibid.

²² Cornell-d’Echert, 25.

²³ Ibid.

²⁴ Larry Kay, “Managing the Gray Zone is a Gray Matter Challenge,” *Small Wars Journal* (July 27, 2016), accessed April 22, 2017, <http://smallwarsjournal.com/jrnl/art/managing-the-gray-zone-is-a-gray-matter-challenge>.

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²⁶ HQDA, FM 6-22, 12-1.

²⁷ Robert H. Scales, “Are You a Strategic Genius?: Not Likely, Given Army’s System for Selecting, Educating Leaders,” Association of the United States Army, October 13, 2016, accessed March 26, 2017, <https://wwwausa.org/articles/are-you-strategic-genius-not-likely-given-army-s-system-selecting-educating-leaders>.

²⁸ Secretary of Defense, *The National Military Strategy of the United States of America, 2011*, 2-4.

²⁹ Persyn and Polson, 10-11.

³⁰ Michael Schoy, “General Gerhard Von Scharnhorst: Mentor of Clausewitz and Father of the Prussian-German General Staff,” Canadian Forces College, Toronto, Canada, 2003, accessed September 1, 2016, http://www.cfc.forces.gc.ca/259/181/82_schoy.pdf, 14.

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CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

The recommendations from this study, if implemented as an entity, and not fractured into small components, will ensure that the Army of 2020 will continue to be led by an officer corps that is expertly developed to succeed in future military operations.

— Mark Adamshick, *2013 Chief of Staff of the Army Leader Development Task Force Final Report*

Introduction

In today's operational environment and with the current complexities of the world a military officer must be capable of "developing logical, practical, and original reasoning ability in military problem solving, rather than on the merits of any situation"¹ earlier in one's career than before. The premise of mission command implies decentralized execution based on decisions and actions made at lower levels of command.² In order to effectively utilize mission command leaders must be developed in the philosophy and Warfighting Function. Successful leader development entails ensuring the appropriate balance of training and education with associated experience to fully enable a leader to operate in austere environments and within the realms of policy makers. Since Army leaders must be capable of operating in two distinct arenas, war and policy, their training and education must be structured to fully develop the KSA to deal with the complexities of the environments.

Chapter 5 used the analysis conducted in Chapter 4 to create a shared understanding through the application of the author's judgement. Recommendations for future leader development techniques and procedures were then developed. The

recommendations are based on ways to capitalize on past recommendations that were not implemented, truncated, or tailored by the leadership in place at the time.

Conclusion

The final step of this qualitative research case study is presentation of thoughts, judgments, and recommendations for application in future developments and creating a shared understanding. As previously stated, neither a new learning or leader development model nor conclusive solutions to the problem statement were offered. Analysis indicated that the leader development environment continued to improve when models evolved; however, styles of leader development were dependent on the personality and background of the leadership in place at the time. This was evident in the LTG Cushman/GEN DePuy relationship and continues to play a role as GEN Milley endeavors to increase the rigor in PME and close the prestige gap with civilian institutions.³

Leader development models were examined for strengths, weaknesses, and adaptations based on the following criteria:

1. Applicability to all levels of leadership
2. Identification and assessment of leadership characteristics
3. Instruction methodologies
4. Relationships between training, education, and experience

The weaknesses listed in figure 10 should be redressed to further assist in guiding the Army towards its intellectual future and increasing the rigor in PME in accordance with the views of current Army senior leadership. Most recommendations in this chapter are based on the missed opportunities that did or did not occur as the operational environment and learning models evolved over the past 12 years.

Table 2. Model Strengths and Weaknesses

Model	Environment	Strengths	Weaknesses	Adaptations
Pentathlete CSA- GEN Schoomaker	2005- America is a nation at war facing a diverse set of security challenges. The 2005 National Defense Strategy emphasized the importance of influencing events before challenges became more dangerous and less manageable. The U.S. military predominated the world in traditional forms of warfare. Potential adversaries shifted away from challenging the United States through traditional military action and adopted asymmetric capabilities and methods. The US sought to develop an adaptable, global approach that acknowledged the limits of intelligence (in all senses of the term), anticipated surprises, and positioned us to handle strategic uncertainty. ⁴	Applied to all classes and ranks of Army personnel. Conceptualized leadership via knowledge, skills, and attributes (KSA). Included multi-discipline life-long learning. Acknowledged varying leadership paths (Strategic Traits).	Did not address learning and instruction methodologies for PME. Failed to capitalize on PME evaluation programs. Failed to capitalize on experiential learning	FM 6-22 Army Leadership: Competent, Confident, and Agile. <i>Creation of Army University in 2015.</i>
OBTE CSA- GEN Casey	2008- The US completed the “Surge” in 2007. The environment was defined by a global struggle against a violent extremist ideology that sought to overturn the international state system. We should act to reduce risks by shaping the development of trends through the decisions we make regarding the equipment and capabilities we develop and the security cooperation, reassurance, dissuasion, deterrence, and operational activities we pursue. DoD should also develop the military capability and capacity to hedge against uncertainty, and the institutional agility and flexibility to plan early and respond effectively alongside interdepartmental, non-governmental and international partners. ⁵	Emphasized creative and critical thinking in tactical and operational scenarios. Enabled mission command the WIF. Identified symbiosis between training and education with emphasis on methodology.	Not applicable to strategic/ enterprise leader development. Did not capture the relevance of experiential learning or balancing proportions of training and education.	Led to the Army Learning Concept (ALC) and Adaptive Learning Model
ALC CSA- GEN Dempsey	2011- The US was withdrawing forces from conflict. The United States remained the world's preeminent power, even as a growing number of state and non-state actors exhibited consequential influence. The changing distribution of power indicated evolution to a “multinodal” world characterized more by shifting, interest-driven coalitions based on diplomatic, military, and economic power, than by rigid security competition between opposing blocs. There were global and regional powers exhibiting nationalism and assertiveness that tested our partners' resilience and U.S. leadership. ⁶	Fully captured the interdependency between training and education. Reemphasized the need for lifelong learning. Embraced adult learning theories in PME. Expressed learning gates IAW career progression	Did not capture the relevance of experiential learning or balancing proportions of training and education.	Led to the Army Leader Development Strategy (ALDS).
ALDS CSA- GEN Odierno	2013- The United States must remain prepared to engage the world as the international order becomes more dynamic and requires adaptability. Flexibility and creativity in perceiving and solving complex international problems will differentiate tomorrow's geopolitical winners and losers. Reliance on dogmatic approaches to policy or ignorance of international and historical context will provide certain failure. ⁷	Capitalized on the interdependency between training, education, and experience. Emphasized 3-learning domains. Embedded mission command in PME.	Failed to acknowledge varying leadership paths and adjust the Career Management System. Failed to assess KSAs at lowest level.	<i>Army Talent Management established in 2015.</i> <i>AIM2 pilot/ Greennpages revisited in 2016.</i>
Civilian CSA- GEN Wickham Jr.	1984- The Cold War is ongoing and the Space Race is booming. President Reagan announced the bombing of Russia. Tensions continued to flare in Beirut, Lebanon after the bombing of the USMC Barracks, kidnapping of the CIA chief, and bombing of the US Embassy by Hezbollah. Within the US the Unemployment Rate dropped to 7.2%, which was the same rate it was when the recession started in June 1981. ⁸	Captured the role of the student and the instructor in the learning environment.	Failed to capitalize on ability or willingness to learn within the student, requiring adjustments by the instructor.	Eventually modified (SSDL) to account for student's environmental factors. Original, 1984, theories applied heavily in the Army in 2011.

Source: Created by author.

Recommendations

The U.S. Army desperately needs another PME advocate in Congress. However, until someone steps forward the Army must return to the standards and timelines for program evaluations and assessments established by the Skelton Panel in 1987 and away from the truncated timelines Operation Iraqi Freedom/Operation Enduring Freedom necessitated. Additionally, service specific evaluation programs must be adhered to or developed to ensure the appropriate level of rigor in PME corresponds to the desired balance between training and education in all programs; especially graduate level degree producing programs such as the CGSOC.

It is highly recommended that ALMs continue to be used in all phases of PME from initial entry through senior service college. However, it is imperative that the adaptation of the SSDL Model be implemented at each level of PME and allowances made for instructors to adjust methods based on observed motivation levels of students. Instruction methods that do not correspond to the level of PME reduce the effectiveness of the desired training or education. As stated in chapter four, officer PME can be categorized according to the following stages: Stage 1—Basic Officer Leadership Course; Stage 2—Captain’s Career Course; Stage 3—CGSOC; and a mixture of Stage 3 and 4—Senior Service College. Using an oversimplified method of instruction for a Stage 3 or 4 PME course would not equate to the desired rigor from an equivalent institution. Additionally, an advanced method of instruction used at a Stage 1 or 2 PME course could be too rigorous to achieve the required competency.

Instruction method is also closely related to selection criteria for certain phases of PME. It may be disadvantageous to only send top percentages of year groups to resident

courses when the additional structure and guidance of a resident program could benefit someone outside the top tier far more. Success in a program that is predominately distance learning requires participation from students that have a certain readiness and orientation to learning as exemplified in Knowles' theories. This is not always the case for those that do not rank in the top tiers of their year groups, and sometimes not even those that rank in the top tier.

As mentioned in chapter 4 MAJ Kay recommended the Army: "Change the culture of categorizing officers as 'the best' and/or 'the brightest' to 'operationally excellent' and/or 'creatively excellent,' deliberately distinguishing them for what they are best suited for in serving the Army, focused specifically on managing gray zones."⁹ Although this distinction between the two types of leaders would have been highly effective during the use of OBTE it can still be applied to evaluating company grade (lieutenants and captains) officers in today's operational environment. The distinction as operationally or creatively excellent can serve as the basis for broadening and educational experiences that can be tailored to affect the desired career path, KSAs, or hone strategic traits as teachers, organizers, commanders, and communicators for future senior leaders.

Additionally, in terms of PME, the CGSC should bridge the gap from training to education as leader's transition from tacticians to operators and build the foundation to becoming strategic enterprise leaders. The CGSOC must build the base knowledge in the art of war on which senior leaders are educated, it must hone the science of war and methods lieutenants and captains have been trained on, and identify the attributes within each student that exemplify the potential for senior leadership.¹⁰ This must be done

through the appropriate proportions of training and education that also capitalize on experiential learning.

Currently, the curriculum at the CGSOC relies on qualitative evaluations of assignments that are all open book or notes and done outside of the classroom. The course has shifted away from quantitative evaluations via in class tests entirely. The most effective curriculum to increase the rigor in CGSOC should be a mix of qualitative and quantitative evaluations to assess the assimilation of knowledge. However, the two must also be conducted in the proper proportion, similar to the training to education proportions explained in chapter 4, to ensure the course meets its desired intent. The course has instituted a cumulative oral examination based on the core curriculum. This addition is a great first step in achieving GEN Milley's intent and should be continued indefinitely.

Advanced Civil Schooling and the Performance Based Graduate School Incentive Program should be structured based on the corresponding level of PME. Basic programs for junior grade officers should focus on the technical aspects of their branch and offered prior to and after the Captain's Career Course but prior to assumption of command or key and developmental time. Therefore, engineer officers should be pursuing engineering related advanced degrees; signal and cyber officers should be pursuing information technology, cybersecurity, and similar programs; and so on. At the field grade level the transition in program orientation should shift to political science and other fields that enable the shift to the strategic trait and focus areas (teachers, organizers, commanders, and communicators) previously mentioned.

The current Army Strategic Planning and Policy Program is a highly selective doctoral program and appropriately placed at the major to junior lieutenant colonel level. The program develops leaders in specific functional areas requiring enterprise organizers and strategic communicators. However, the degree program and institution utilized should be heavily scrutinized by a dedicated military governing body to ensure the desired rigor and credentials meet the standards desired from Army and civilian leadership. Additionally, similar programs should be developed in degree fields that further develop the other strategic traits and focus areas needed to govern the entire Army enterprise.

Once lieutenant colonels and colonels reach the senior service college level of PME, any fellowship programs in lieu of a Department of Defense Senior Service College, should be centered on strategy and policy programs at top tier schools. All fellowship programs and senior service colleges should be mandatorily produce master's degrees. Additionally, an alternate system of multi-year doctoral producing fellowships should be developed to ensure senior leaders with the most potential for service at the general officer level are credentialed equivalently with civilian senior leaders. This will level the playing field in civil military relationships where degree credentials are usually esteemed higher than associated job experience.

Potential Further Research

During the course of research areas of interest emerged that are worthy of additional investment. However, in order to prevent broadening the scope of the document and due to limiting factors they were not included. The most benefit from this study can be gained by incorporating quantitative data from a sample of PME sources.

Some further study recommendations include attitudes towards proportions of training and education in Army graduate level courses, specifically the CGSOC. In addition, the effectiveness of the *Center for Army Leadership Annual Survey of Army Leadership* and changes implemented based on the survey, as well as analysis of civilian degree programs producing similar degrees to those in The Army University and Army War College curriculum to ascertain rigor equivalencies.

Summary

The course of this document examined Army Warfighting Challenge number 10—Develop Agile and Adaptive Leaders—and learning and leader development models used to shape the KSA of Army senior leaders.¹¹ Overall, leader development is not an easy task. At all levels it takes a foundation in training and education, accentuated with experiential learning that is deliberate and meaningful to fully enable leaders to operate in austere environments and within the realms of policy makers. As a leader, one must ensure learning and leader development objectives meet the needs of the individual and compound through the phases of PME to achieve the required readiness in the Army enterprise. Case study analysis of past recommendations has shown the progressive elaboration of models over time and it offers a good starting point to optimizing leader development programs and developing effective leaders. However, ultimately, recommendations must be within the scope of the current senior military and civil leadership and be used in a timely manner to affect major change.

¹ Cushman, 18.

² Department of the Army, Headquarters U.S. Army, Training and Doctrine Command, TRADOC Pamphlet 525-3-0, *The US Army Capstone Concept* (Washington, DC: Government Printing Office, December 19, 2012), 21-22.

³ The Army University, “Educating Leaders to Win in a Complex World,” 5.

⁴ Secretary of Defense, *The National Defense Strategy of The United States of America*, 2005, iii-2.

⁵ Secretary of Defense, *National Defense Strategy*, 2008, 2-5.

⁶ Chairman, Joint Chiefs of Staff, *The National Military Strategy of the United States of America, 2011: Redefining America’s Military Leadership* (Washington, DC: Department of Defense, February 2011), 2-4.

⁷ U.S. President, *National Security Strategy 2013*.

⁸ Wikipedia, “1984 in the United States.”

⁹ Kay.

¹⁰ Turner, 57-59.

¹¹ ARCIC, “Army Warfighting Challenges.”

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